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"Scire est nescire, nisi id me
Scire alius sciret."

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FORMS OF JOINT DISEASE MET WITH IN MEDICAL PRACTICE.[1]

BY

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RHEUMATIC fever is a definite disease having its own specific micro-organism and constant striking clinical characters, yet mistakes about it are not infrequent; and the error nearly always is, that some other disease is called rheumatic fever, and not that rheumatic fever is called some other disease. I believe the reason for this to be that rheumatic fever is so common and as a rule so readily distinguished that when, after easily and successfully diagnosing say forty-nine cases, the fiftieth difficult case presents itself we have become so accustomed to an easy diagnosis that we fall into error. This being so, I hope it will not be unprofitable if I give you an account of some mistakes I have known to be made.

[1] Paper read at a meeting of the Bath and Bristol Branch of the British Medical Association on April 27th, 1904, at Bath.

The first group illustrates the danger of diagnosing rheumatic fever when symptoms of this disease are present in a solitary joint. I believe the diagnosis of rheumatic fever should always be withheld so long as only one joint is implicated. Early in the disease a single joint may be affected, but while this is so leave the diagnosis in doubt. If the patient is suffering from this disease a second joint will be affected within twenty-four hours. I have twice known fracture into the knee-joint mistaken for rheumatic fever. I have seen the same error made in a case of osteo-myelitis of the head of the tibia, and this reminds me of a case which hardly illustrates the point under discussion, but is worthy of mention, for the patient had osteo-myelitis of the head of each tibia, with effusion into each knee-joint, but rheumatic fever was diagnosed. In a young girl acute necrosis of the head of the femur, with effusion of pus into the hip-joint, was regarded as rheumatic fever. In all these cases the error was recognised in time; each patient was handed over to a surgeon, and ultimately got well. But four years ago I saw a child who was suddenly taken ill with pain in the hip and fever. He was thought to be suffering from rheumatic fever, and was admitted into the hospital five days after the onset of the illness. He was then in the typhoid state, owing to septicæmia, and in spite of cutting down on the diseased hip immediately after admission to the hospital, he died. On several occasions I have known pleurisy or pneumonia to cause such pain in the shoulder on the same side as the pulmonary disease that the patient has been thought, as pyrexia was present, to be suffering from rheumatic fever. It is true that usually the pleurisy or pneumonia has been discovered, but the case has been wrongly regarded as rheumatic fever with rheumatic pleurisy instead of, as it ought to have been, pneumococcal pleurisy or pneumonia with reflex pain in the shoulder. On the other hand, I have once known pneumonia completely missed because attention had been so concentrated on the pain in the shoulder, which was thought to be rheumatic. In these cases the pain is not due to pneumococcal affection of the joint, for no effusion ultimately occurs. I have known

many instances besides those quoted in which refusal to diagnose rheumatic fever when only one joint is affected has saved a mistake, but we will now pass on to other errors in connection with rheumatic fever.

It may be mistaken for almost any specific fever, because the patient who has fever often complains of pain in the limbs, and if these pains are referred to the joints an erroneous diagnosis may be made. Perhaps the mistake is commonest with influenza, but I have heard even of small-pox being mistaken for rheumatic fever; but in most cases the lapse of a few days sets the diagnosis right. This is often not so when pyæmia is mistaken for rheumatic fever. Such an error is by no means uncommon, and so important is it that it is worth while to mention a few examples. Some years ago a youth was transferred to my care from the surgical ward, where pain and effusion into several joints had led to a diagnosis of rheumatic fever. The discovery of some pneumonia, amongst other reasons, made us doubt this diagnosis. A rectal examination revealed a prostatic abscess, which was the source of the pyæmia. On another occasion a patient was sent in as a case of rheumatic fever, but a careful examination showed him to be suffering from pyæmia secondary to a sore on the heel; and in another instance rheumatic fever was incorrectly diagnosed in a patient suffering from pyæmia due to suppuration of both middle ears. In these cases the diagnosis of pyæmia made during life was unfortunately confirmed by a *post-mortem* examination; but in another instance a patient who was sent in from surgical out-patients as rheumatic fever recovered, after pus had been let out from the shoulder-joint, from the pyæmia from which he was really suffering, and which was due to a cut on the hand. The confusion between rheumatic fever and pyæmia is very serious; for if pyæmia is called rheumatic fever, failure to adopt early surgical treatment may cost the patient his life, and an almost certain hope of his recovery may be held out when he is within a few days of his death. When the pyæmia takes the form of malignant endocarditis the diagnosis may be difficult, as the following case will show:—

A boy, aged 11, was admitted under me on January 25th, 1895. He was one of a large family, several of whom had had rheumatic fever and chorea, and he had had both two years ago. On admission he had much pain in both knees; his temperature was 104.4°; he had systolic and presystolic mitral murmurs; he was thought to have rheumatic fever, but the diagnosis was regarded as doubtful as the skin was so dry. In less than forty-eight hours definite signs of meningitis enabled a diagnosis of malignant endocarditis, with pyæmic infection of the joints and meninges, to be made. He died six days after admission. Malignant endocarditis, suppurative meningitis, and pus in both knee-joints was found.

More than once I have known syphilis, which has caused effusion into the joints, to be mistaken for rheumatic fever. The following is an example of this error:—

A man, aged 26, was sent into the hospital under my care with a diagnosis of rheumatic fever, which he had also had twelve years before. The present illness began three weeks before admission with pain and swelling in the left elbow. A week later the left knee was affected in the same way, and soon after the left foot. On admission he had pyrexia, the above-mentioned joints were swollen, and he was sweating considerably; there was slight but distinct evidence of a secondary syphilitic rash; he had a sore throat, and had had a hard chancre ten weeks ago, and the arthritis was thought to be syphilitic. Forty-eight hours' treatment by salicylates made no impression on the disease, but he finally recovered with mercury.

Cerebro-spinal meningitis due to the diplococcus intracellularis may be mistaken for rheumatic fever. Pyrexia with pain and effusion into the joints are early symptoms in this form of meningitis. The rash may be thought to be a rheumatic erythema, and the pain caused by retraction of the head may be set down to rheumatism. I have known the mistake made.

Gonorrhœal rheumatism is frequently mistaken for other forms of chronic rheumatism; but if very severe it may be, and often is, thought to be rheumatic fever, for in a severe case of gonorrhœal rheumatism the temperature may be 103°. I saw this mistake made last month. The patient had pyrexia, but the facts that the joint trouble had persisted in a few joints for some days, that one knee was enormously swollen, that there was no blush over the joints, and the skin was dry made

me suspicious. We found a slight gleet, and the case ran the course of gonorrhœal rheumatism. Sometimes help may be obtained from the fact that the effusion is in the sheaths of tendons as well as in the joints, for this is far more common in gonorrhœal rheumatism than in rheumatic fever. When gonorrhœal rheumatism occurs in women it is particularly likely to be overlooked.

It might at first be thought that typhoid fever could not be mistaken for rheumatic fever, but both are so common that it is not rare, if the febrile pains of typhoid are referred to the joints, for rheumatic fever to be suspected. Arthritis is so exceptionally a complication of typhoid fever that serious difficulty does not often occur; but it happened to me once to see a child, aged 6, who eight days before had been seized with sudden pain in the right hip and a temperature of 103°. The pyrexia persisted; the pain in a few days left the right hip and appeared in the left, and then the knees and ankles were painful and swollen. This led to a diagnosis of rheumatic fever; but when I saw the child the tongue, the spleen, and some typical rose spots were quite characteristic of typhoid fever, and that the disease was not rheumatic fever was proved by the fact that the left hip became completely disorganised.

Although some text-books apprehend difficulties of diagnosis between pneumonia and rheumatic fever, they do not, I think, often occur. Pneumococcal arthritis is a rare complication of pneumonia, but pneumonia is so common that we see the arthritis from time to time. A good instance is that of a child admitted with pneumonia. There was much diarrhœa, probably due to pneumococcal enteritis; a pneumococcal empyema formed, and was drained; both shoulder-joints swelled—pus containing a pure cultivation of pneumococci was found in each, and let out. The child got quite well.

Glanders has been mistaken for rheumatic fever, but fortunately it is so rare that the mistake is not common. The confusion between rheumatic fever and the acute joint affections in dysentery, Malta fever, and dengue does not concern us here, and acute rheumatoid arthritis will be best considered when we come to chronic rheumatism.

Acute gout is frequently thought to be rheumatic fever—an unpardonable mistake if deposits of urate of soda can be seen anywhere, but often when they are absent it is forgotten that gout may occur in poor people who are perfectly abstemious; indeed, I think that the worst cases of gout now seen are in those who are most careful in what they eat and drink, obeying their doctor punctiliously, for most of the cases that can be controlled by diet are so controlled. I need not take up the time of such a Society as this with the points of distinction. A day or two's observation will nearly always resolve any difficulties. That I am not alone in thinking the mistake common is shown by a recent paper by Futcher,[1] of Baltimore, who says: "I am quite sure that the apparent infrequency of gout in the United States is due to the failure of the profession to recognise the disease. The affection is usually mistaken for rheumatism."

I need not do more than mention the joint affections of scarlet fever or those that follow the injection of antitoxin, for the previous history always prevents mistakes.

It is so well known that when rheumatic fever attacks children the articular changes are usually slight, that although the lesser degrees of acute rheumatism are often overlooked in children, yet it is, I think, rare for a child to be said to be suffering from rheumatic fever when it is not. Mistake is most likely to occur in connection with scurvy-rickets, congenital syphilis, and the disease described by Still, in which effusion into joints is associated with enlargement of the lymphatic glands and spleen.

There is, I believe, with some of us a tendency to exaggerate the frequency with which rheumatic fever gives rise to chronic deformity of joints. Patients who have had this fever often suffer from very mild attacks, shown only by articular pain, with perhaps very trifling effusion and slight pyrexia; but serious deformity of joints is excessively rare, and, as far as my experience goes, is seen mostly in children. It is then recognised as being the result of acute rheumatism by the presence of other rheumatic affections, as chorea or endocarditis. The two following cases illustrate this:—

[1] *Practitioner*, 1903, lxxi. 6.

A boy, aged 12, was admitted under me. He had been in the hospital at the age of 5 with chorea; at the age of 7 with pains and slight swelling in several joints, endocarditis and pyrexia; at the age of 8 with erythema, fresh endocarditis, pain and swelling of several joints, relieved by salicylates. When admitted at the age of 12 there was much muscular atrophy, with fixation of all the joints of all four limbs in a position of flexion; the movements of his neck and jaw were impaired. It is true that some of his lymphatic glands were enlarged, but the chorea, erythema, and endocarditis made us regard the trouble as rheumatic. Although it was suggested that he was an example of the disease of children described by Still, in which many joints are swollen and the lymphatic glands and spleen are enlarged, against this view is the fact that there was chronic inflammation of the scalp, which would explain the enlargement of the glands of the neck; and they were the ones principally enlarged, and his spleen was not enlarged. He died at the age of 20, in his own home, from phthisis. My house-physician, Dr. H. J. Starling, made a *post-mortem* examination. The lungs were riddled with cavities, the pericardium was adherent, there were vegetations on the mitral valve.

The second case is that of a boy, aged 12½, now under my care. He has had chorea and pains in his joints. He now has some muscular atrophy and chronic enlargement, with effusion, of the wrists and one ankle. The affection of these joints has lasted at least two months.

We now pass on to consider the chronic affection of joints; and the first thing is, I think, to try and differentiate the diseases that are commonly grouped together as one disease under the names of arthritis deformans, osteo-arthritis, and rheumatoid arthritis. I have elsewhere[1] gone into this in detail. Here it will suffice to say that three diseases at least are grouped together under these terms. There is the disease usually called osteo-arthritis, often confined to the hip-joint, and commonly seen in elderly men. Secondly, there is the disease frequently met with in women in middle life, in whom the trouble commonly begins in the terminal joints of the fingers and the carpo-metacarpal joints of the thumb. The deformity is considerable, and is ultimately largely due to bony outgrowth. In a large number of cases the trouble gradually spreads until many joints are implicated, and the woman may become a helpless cripple; and although in one sense she

[1] *Guy's Hosp. Rep.*, 1902, lvii. 9.

is severely ill, yet the disease is very slow, the symptoms are not acute, and there is no pyrexia. Thirdly, we much less often meet with cases occurring for the most part in women whose age is usually near to 20, in whom the disease begins, or is at any rate soon most prominent, in the proximal phalangeal joints, and is quite early strikingly seen in the wrists. It is markedly symmetrical in the two hands; the swelling is considerable and extends beyond the joints, so that there is a well-marked fusiform swelling about the affected inter-phalangeal joints, and a general swelling about the wrist and other joints; sometimes a creaking may be felt, due apparently to thickening of the synovial membrane. In the course of a very few weeks most of the joints in the body are affected, so that the woman is soon bedridden, unable to move fingers, thumbs, wrists, elbows, shoulders, and the corre sponding joints of the lower extremity. The joints of the spine are often affected, so that turning in bed is difficult and painful; the temporo-maxillary joint is frequently implicated, and mastication is consequently difficult.

Wherever the disposition of surrounding muscles makes it easy to investigate the joints swelling about them is obvious, and the patient usually complains of pain in them. Muscular wasting is so very rapid, that it is clearly an extreme degree of genuine arthritic atrophy not dependent on disuse; the wasting is especially seen in the hand and forearm, but in a bad case it is almost universal. The temperature is often raised daily, mostly in the evening, to a point usually between 100° and 102° F. The hands and feet are often covered with sweat; the patient is pale, and the pulse is increased in frequency out of proportion to and apart from pyrexia, although neither from the history nor from examination of the heart is there any evidence to connect the disease with rheumatic fever. Sometimes a number of brown spots, like large dark freckles, appear on the face, body, and limbs.

After two, three, or four weeks the temperature slowly regains its normal point; the rate of the pulse diminishes, but more slowly than the temperature; the colour partly returns, the sweating of the hands and feet lessens; the pain passes

away, but much immobility and some swelling around the joints remain, and the patient is liable to fresh attacks, which exactly resemble the first and result in fresh swelling of and around the already fixed joints. After the acute stage has subsided the sufferer is by no means recovered, for the swelling of the synovial membrane and soft tissues around the joints leads to great immobility of them, and much of the muscular atrophy remains; the patient is hence often a chronic invalid. In this respect, as well as in others, the disease stands in striking contrast to nearly all cases of rheumatic fever.

Careful manual examination during life, even in cases which have lasted many years, fails to reveal any lipping or bony outgrowths in connection with the joints. The deformity appears to be entirely due to effusion into the joint and swelling of the tissues around. Radiographic examination entirely confirms this view.

This is an account of a severe attack, but these acute attacks frequently recur in the same patient; swelling then takes place in joints deformed from previous attacks. Some of the attacks may be less severe, the pyrexia only lasting a week or ten days. As a rule attacks diminish in severity as time goes on, and ultimately the patient may only suffer from the deformities due to previous attacks.

I have been fortunate in obtaining a *post-mortem* examination upon a patient affected with the disease; it is fully described in the paper in the *Guy's Hospital Reports*. Many joints were opened, and we were able to prove that the disease was one of the synovial membrane. There were no outgrowths of bone or cartilage. I show you a drawing from a microscopical section of a severely-affected phalangeal joint, and you will see that the synovial membrane is thickened by the formation of new fibrous tissue, which is chronically inflamed. You will see that the cartilage is only thinned and eroded in one place, just where it has been subject to the pressure of the fringe of thickened synovial membrane, and that just there and nowhere else there is a little inflammation of bone. It is clear that we have to do with a disease of the synovial

membrane. Any affection of bone or cartilage is quite unimportant, and only secondary to pressure of thickened synovial membrane; and hence if any destruction of cartilage takes place it is not until years have elapsed, and then probably only occurs in one joint out of the many affected.

I have a number of photographs from three patients affected with the disease, and the condition of hands is very well shown, the spindle-like enlargement of the first inter-phalangeal joints being especially marked; but the affection of other joints and the arthritic muscular atrophy are also very evident. I also show you a drawing of the section of an inter-phalangeal joint, and the section itself is under the microscope. Further, I am passing round two temperature charts with the rate of pulse, which illustrate admirably the pyrexia and increased rapidity of the pulse. We will now pass on to consider the Röntgen ray appearances in these three cases. The thing that strikes us on examining these pictures is the unusually transparent appearance of the ends of the bones. In the hands it is best seen on either side of the metacarpo-phalangeal joints, but it is also quite evident at the ends of the phalanges. In the elbow too it was noticeable, especially in the olecranon, and other radiographs from these patients showed it in the ends of the bones forming the shoulders, ankles, and knees. I have looked at many radiographs of healthy joints, and also at those taken from patients suffering from chronic osteo-arthritis; and although the ends of the shafts are often more transparent than the middle, comparison with my two cases does suggest that possibly in future an exceptional transparency to the Röntgen rays of the ends of the bones will be regarded as peculiar to acute rheumatoid arthritis when this disease is contrasted with those having a very similar name. Three cases are too few for a generalisation, but this suggestion gains force from the fact that in looking through a number of radiographs of hands I came across one in which transparency of the ends of the bones was striking. The radiograph was labelled "Chronic osteo-arthritis," and I was unable to trace the case; but the radiograph showed no trace of bony outgrowth or lipping, which in itself was suggestive that the disease from which the

patient was suffering was not chronic osteo-arthritis, but acute rheumatoid arthritis, and this view was supported by the fact that there was extreme flexion of the phalanges at the proximal inter-phalangeal joints. Now, as in acute rheumatoid arthritis, these joints are most strikingly affected and the muscular atrophy is extreme. The secondary flexion due to contracture is especially likely to occur at the proximal inter-phalangeal joints. Again, the suggestion here made that this exceptional transparency of bone may some day be found to be one of the distinctions of acute rheumatoid arthritis from other diseases having a similar name is indirectly supported by Walsh, who says: "The rheumatoid bones look more fragile; in point of fact they are atrophied, a condition which renders them more penetrable to the rays. Indeed, from their appearance it may be pretty safely inferred that they are deficient in bone salts." Later on he speaks of their great transparency. The radiograph he publishes to illustrate the point is taken from a lady, aged 31, who had had the disease since the age of 13, and nearly every joint in her body was affected. But it is very likely that this patient was really suffering from acute rheumatoid arthritis; for I have pointed out that this disease usually occurs in young women, that its resulting deformities continue for many years and may affect every joint in the body. Whether this transparency is greater in acute rheumatoid arthritis than in other diseases of joints, such as tubercle, osteomalacia, and cancer, in which Walsh says it may occur, is a point well worthy of further investigation. The transparency of bone is not transitory, for the patient who was in the hospital twice showed it on each occasion.

Want of time prevents my fully discussing the bacteriology of this disease and the possibility of its being a chronic infection. I hope to do this on another occasion, but I cannot refrain from mentioning one case which I have followed up. The patient was a young woman who presented the typical symptoms of acute rheumatoid arthritis. As there was much discharge of pus in connection with dead stumps of teeth, it was suggested that she was really suffering from an infective arthritis. All the dead stumps were taken out, and the mouth was made thoroughly

healthy. She left the hospital about a year ago, and a fortnight ago I wrote to her. Her reply was that the joints were no better. Indeed, I think for many reasons that even if ultimately acute rheumatoid arthritis is shown to be due to a micro-organism, as it probably will be, that micro-organism will not be the streptococcus associated with ordinary suppuration, for not only does this case tell against such a view, but the blood, the spleen, the mesenteric glands, and the fluid from various joints of my fatal case were all examined very carefully in the Guy's Hospital bacteriological laboratory by cultures and innoculations and no ordinary streptococci or staphylococci could be found. The case reported by Gask in the last volume of the Pathological Society does not tell against this view, for there was no *post-mortem* examination: only fluid removed from the joint during life was examined, and this was harmless when injected into animals. I should like the opinion of members present whether acute rheumatoid arthritis is not a distinct disease; its characters are, it is acute with pyrexia and an abnormally rapid pulse, it relapses, there is anæmia. The sweating, which is extreme, is almost confined to the hands and feet; it occurs in young women, has none of the associations of rheumatic fever, is a synovial disease, any destruction of bone or cartilage is merely secondary to pressure of thickened synovial membrane, the tissues round the joints are thickened, the proximal interphalangeal joints are most characteristically and constantly affected with a spindle swelling. The temporo-maxillary joint is generally implicated, and even if cases have lasted many years there is no erosion of cartilage beyond what might be called accidental from pressure of thickened synovial membrane. Then too, there is the radiographic transparency. We now pass on to some mistakes often made in connection with chronic diseases of joints.

There is no disease about which we are so slovenly as gout. No malady can be certainly said to be gout until urate of soda can be seen. Very often a skilled observer can say from the clinical characters of an arthritis, *e.g.* of the great toe, that the probability of its being gout are so great that for all practical purposes the diagnosis is certain, but very often an arthritis

which presents but few of the clinical characters of gout is called gouty. This should never be done unless uratic deposits can be seen in some part of the body. In many cases of chronic arthritis it is impossible to say whether the disease is rheumatoid arthritis or gout, but this is no justification for the phrase rheumatic gout. A disease may be chronic osteo-arthritis or gout, but it cannot be both, although in rare instances the two diseases may be present in the same patient.

Gonorrhœal rheumatism is probably, next to gout, the chronic disease of joints which gives rise to most mistakes. As already mentioned I have often seen it called rheumatic fever. Although the affection of the temporo-maxillary joint and spine are common in gonorrhœal rheumatism and almost unknown in rheumatic fever, yet these are frequently affected in acute rheumatoid arthritis. The affection of the sheaths of tendons and fasciæ are important aids to the diagnosis of gonorrhœal rheumatism, which is especially liable to be overlooked in the Mediterranean where chronic affection of joints in connection with Malta fever is often seen. Many books do not lay sufficient strength on the fact that gonorrhœal rheumatism is often accompanied by a very severe degree of arthritic muscular atrophy. I have actually twice known cases to be called progressive muscular atrophy when really they were the arthritic atrophy of severe gonorrhœal rheumatism.

Speaking of gonorrhœal rheumatism brings to mind the fact that flat foot is often overlooked; patients say they have rheumatism, the doctor acquiesces in this diagnosis of a case that is really one of flat foot. I have often seen this mistake made.

As far as my experience goes, an error which is not unfrequently committed is to confound sciatica and chronic osteo-arthritis of the hip. The mistake is serious, for in most cases it makes a considerable difference in treatment. I remember a man who had been seen by many doctors, and had been assured he had osteo-arthritis of the hip. As he was passing through London Mr. Edmund Owen and I saw him together, and were able to demonstrate to his doctor he had sciatica. On the other hand, a patient was sent into the hospital the other day as

sciatica, but he really had osteo-arthritis of the hip. The most useful point of diagnosis is to search carefully for tenderness over the sciatic nerve. This can always be demonstrated in some part of the course of it, or its branches, if sciatica is present, in which disease the muscular atrophy follows the distribution of the nerve, but in hip-joint disease it is an arthritic atrophy of the muscles which move the hip.

Much interest has been excited of late by the question whether some cases of chronic articular rheumatism may not be instances of tubercular disease of joints. Usually speaking, tubercular disease of a joint is quite unlike rheumatism, and with regard to the question whether some cases usually looked upon as rheumatic and affecting many joints are tubercular, the proof is very difficult, for it has been suggested that the subjects of tubercle are more liable than others to chronic rheumatism, that even if the joint trouble is tubercular it is so chronic that by the time the patient dies the tubercle bacilli in the arthritic tissues are dead; and, lastly, it may be that in some of the rare cases about which there is doubt some of the joints may be tubercular and others rheumatic. The subject is ably discussed by Edsell and Lavenson in the *American Journal of Medical Sciences* for December, 1903. No certain conclusion is reached, but the suggestion—which seems probable—is made that some at least of Still's cases were examples of chronic polyarticular tubercular arthritis. The most interesting case of this kind that has come under my notice is that of a woman, aged 40, who had phthisis with tubercle bacilli in the sputum. Her elbows and ankles, shoulders and wrists were affected with a disease which would, if she had been otherwise healthy, have been certainly regarded as rheumatoid arthritis. Only the most careful *post-mortem* examination could have settled the point, and for this there was no opportunity. Another striking instance was that of a man who had fixation of the left hip. There was some rheumatic change in two phalangeal joints of the fingers and one of the toes. Some thought the condition was tubercular, while others were sure it was not; but a tubercular abscess ultimately formed in connection with the hip.

It is now gradually becoming recognised that some chronic

cases which would certainly formerly have been regarded as polyarticular rheumatism, are really chronic infective arthritis, due to septic absorption from some chronic abscess. I would suggest that whenever we are examining a case of supposed chronic rheumatism we should thoroughly search the body for some chronic abscess, which is, I think, especially liable to be overlooked when in connection with the teeth. When the patient is an elderly woman, and therefore just the sort of person likely to have chronic articular rheumatism, the mistake is easy. For example, I saw the other day an old lady who had pyuria, and it was thought chronic articular rheumatism, but we found that the joints had only been affected since the pyuria began, and that those implicated were the shoulders, ankles, and the right knee. The shoulders were nearly fixed, and there was slight grating in the right; the ankles and knees were swollen and tender. There was no affection of the hands or feet as is so common in chronic articular rheumatism.

Hypertrophic pulmonary osteo-arthropathy is probably an instance of chronic infective absorption from the dilated bronchial tubes or chronic cavities in the lungs, and is not likely to be overlooked if the disease is borne in mind.

Some rare diseases of joints are particularly liable to be mistaken for chronic articular rheumatism, because the disease of which they are a part is very infrequent. This is perhaps hardly true of tabes, for that is a common affection, but it is a good thing to test the knee jerk and pupil reflex in many cases of chronic articular disease. I have known a joint scraped for supposed tubercle when really the patient was suffering from syringomyelia. This would not have occurred if the patient had been examined for syringomyelia. But the most remarkable case I have met with in which a nervous affection of joints gave rise to difficulty was that of a man, aged 43, who was sent into the hospital under me for supposed rheumatic fever, which he said he had had on a former occasion. He had an apical murmur and some pyrexia. The lower extremities were very tender, and he said this was why he could not move them. The left knee was swollen, but as the skin was perfectly dry I doubted the diagnosis. Two days after admission the right

ankle became swollen and red. Two days after an acute trophic bedsore developed; later the bladder was affected, and other trophic sores developed. The patient ultimately recovered from a severe attack of acute myelitis, which was the cause of his arthritic trouble.

Two rare diseases about which I have known serious mistakes made are hæmophilia and Henoch's purpura. Cutting into the joint of a patient affected with the first disease will probably lead to his death, and in the second disease if the doctor omits to recognise the cause of the pains in the joints he fails to warn the friends of the appearance of other symptoms and of the great tediousness of the case.

NOTES ON SOME CASES FROM AN ELECTRICAL DEPARTMENT.

BY

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IN the last twelve months some two hundred patients were sent to this department at the General Hospital, comprising a great variety of cases. Many of these expected a "lightning cure," or were prevented from coming regularly, so that their attendance was short and useless. But a large number showed definite improvement, and some a complete recovery. Some were sent to me for diagnosis and then referred back to their physicians and surgeons, and many others I was asked to treat by my colleagues. There is a tendency to expect either marvellous cures, or to deny the efficacy of electrical methods altogether, whereas by patient work and by adapting the treatment to the individual case successful results, or at least steady improvement, will be obtained in a certain proportion of patients, though of course some failures are sure to be met with. The regeneration of a divided nerve or the growth of a wasted muscle is a very slow process at best, especially when

the muscle has been left unused for years, or when the nerve which supplies it is still subject to the occasional influence of a poison such as we have in alcohol, diabetes, lead or rheumatism. Then in traumatic cases there are other difficulties, such as adhesions, habits of using other muscles or another limb, which have to be overcome, so that, though structural repair may be complete, you may have to wait a long while before the function is once more normal.

Our apparatus consists of a galvanic current led from cells to various stations; a Faradic current; and a secondary current derived from the sinusoidal street mains interrupted by a clock-work metronome and supplying a dozen arm and foot baths, and a full-length bath. The latter has also the galvanic current and a hot or cold electric douche. There is also an apparatus for high-frequency currents with an auto-condensation chair, and a Philips' hot-air bath giving a temperature of 300° from an Omega stove. Hot-air treatment is also given in bed in the wards by a double row of electric lights under a cradle, and electrical treatment from the sinusoidal current can be also given in bed through a transformer switched on to any wall plug.

Duchenne's and Erb's Paralyses.—I showed recently a little girl with almost complete recovery after prolonged treatment by electrical arm-baths and massage. Generally the prognosis is good if the injury has not been extreme. There is a difficulty in distinguishing these cases from infantile paralysis, in which recovery is slower and less complete. Warrington points out that there may be no loss of sensation even in these local nerve injuries, and pain cannot always be relied on in young children, and indeed it occasionally complicates infantile paralysis. If the lesion affects more muscles than those supplied by the fifth and sixth nerves, such as the triceps, I suppose we are justified in diagnosing infantile paralysis in doubtful cases. Harris and Low apparently prove that the lesion is confined to the fifth nerve only, and that in obstinate cases this nerve may be exposed, divided and sutured into the sixth or seventh. Tubby has succeeded in grafting a strip of the triceps into the biceps, and replacing the deltoid by portions of the pectoralis major

and trapezius. I hope that my surgical colleagues may utilise some such procedure for intractable cases.

Progressive Muscular Atrophy.—I have rather discouraged the attendance of these patients as useless, but in one or two cases some arrest or improvement was shown. A patient of Dr. Neild's of the lower arm type quickly mended, the grasp of the left hand became 105, and that of the right 145. I have also notes of improvement in one or two women who attended, but a cure of the complaint is not to be expected.

In **Neuralgia** pure and simple the high-frequency currents seem at times to give immediate relief. I have personally experienced their value in severe faceache, and each application seems to give a longer interval of ease. The effleuve from the resonator is perhaps the best way of applying them.

In simple **Lumbago** rapid relief is obtained. I had several cases where good results followed a few hot baths through which the sinusoidal current was flowing, and there is probably no better cure for this painful condition than these baths. The great improvement in general health which patients show who have taken a course of these baths is very striking, and it seems to me that here in Clifton where baths with the sinusoidal or combined currents can be obtained at the Spa we are very behind-hand in making so little use of them in our daily practice. Gowers has broached an interesting theory of lumbago as due to compression of the muscle spindles, in which the afferent nerves start, by an inflammatory affection of the interstitial tissue, a fibrositis as he would call it. The final proof of this needs much pathological research, but I should like to direct attention to one form of the disease which he mentions, namely brachial myalgia, commencing with pain and tenderness in the insertion of the deltoid, and often mistaken for an affection of the joint. I have had some of these cases recently where the joint was quite free, but the arm was kept in a fixed position. The least movement sometimes causes intense pain unless the strain is taken off the affected muscle and its opponents.

Diabetes.—A few cases only were tried with high-frequency currents, and good results were noted in diminution of the sugar and gain of weight. Without claiming for the treatment the

power of cure except in peculiarly favourable cases, it seems to be a valuable help by increasing the effect of diet and drugs.

R. B., a male, 65, attended as an out-patient for three years. The sugar was kept down by careful diet, opium and uranium nitrate; but from June to September it averaged 7 per cent., and his weight had fallen to about 7½ stones, though he was taking cod liver oil at the time. Without altering his other treatment, he received the high-frequency currents by the auto-condensation couch, and his fortnightly weight and percentage of sugar registered afterwards—

Stones ...	7-8	7-11	7-12	8-0½	8-4	8-7	8-7	8-6	8-8
Sugar per cent.	6½	5½	6½	6	4½	6	4	4½	4½

or a gain in weight of a stone, while the sugar averaged 5·3 per cent.

E. G., a female, 58, showed lung symptoms with much blood-stained expectoration besides the glycosuria. There were no bacilli, however, and on restricted diet and rest in bed the lung symptoms cleared up and she gained in weight, but until the blood ceased I did not venture to use the high-frequency currents. She did very well, and soon left the hospital with only a trace of sugar, but her gain of five pounds in three weeks cannot be put down to the use of the currents, as she was putting on flesh rapidly before.

In the same way it is difficult to estimate the value of the currents in a case of diabetes insipidus, for the treatment was only employed after an improvement under drugs was started. However, the patient gained two stones in weight, and the amount of urine fell from 132 ounces daily to 86. He went back to work, but comes to see me from time to time.

Functional Cases.—Some of these were most curious. A man with marvellous clonic spasm of the eyelids was treated with the high frequency effleuve and steadily improved, leaving well and fit for work; while a girl of twelve with left hemiplegia and anæsthesia complete in the arm can be cured daily by the same treatment, but comes back regularly as bad as ever. I am hopeless about her unless she can be sent away from home for some months and isolated from her friends. Another girl, in whose case there seems some underlying Raynaud's disease, had both hands red and cyanosed. This condition had previously appeared in the right hand every October for some years and passed away again, but when she came to me the right hand was firmly clenched, and the arm

and hand were much swollen and pitted on pressure. On the dorsal surface were several blebs. The sense of touch and of heat were normal, that of pain indistinct at first but afterwards normal. The Faradic and galvanic reactions were normal, but the spasm continued for months, and was only slightly relieved by treatment. Our baths, I should say, were not then in full working order. After a time the entire group of symptoms passed away, and I have lately seen her apparently quite well, two fingers only being a little stiff after their long continued contraction. The following case in which rupture of the brachial plexus was negatived by the electrical reactions was probably functional.

H. T., 29, a telephone fitter, on trying to turn round in a subway, on February 24th, wrenched his right arm backwards and downwards. He was sent to me by Dr. Symes about a month after his accident complaining of complete loss of the power of movement in the right arm and hand. On April 6th there was no definite wasting of the muscles, but a slight protrusion of the posterior border of the scapula, possibly due to the position in which he stood. The Faradic current, when one electrode was placed over the plexus above the clavicle and the other on the back, gave a reaction in the muscles of the injured arm equal to that obtained on the sound side. The Faradic reactions in the deltoid, biceps, triceps, extensors and flexors of the hand and fingers, and in the thenar muscles were all normal. The only galvanic change noted was that the minimal current required to give a reaction in the lower part of the limb was rather greater than on the sound side. Thus there was no reaction of degeneration six weeks after the injury, and the conductivity of the cord was unimpaired. The elbow appeared slightly abducted and the wrist a little flexed. Sensation, according to the patient's account, was lost below a horizontal line round the arm touching the anterior and posterior folds of the axilla. Passive movements were free, and no dislocation or injury to the joints of the arm was present. The patient was given a favourable prognosis, but disappeared for twelve months, when he was found to have regained complete use of the arm.

I am in doubt whether the next case was functional or an occupation palsy.

E. M., 48, a carpenter, lost sensation in the index finger of the left hand, so that he had to hold nails between the thumb and second finger. Eighteen months later this hand became suddenly clenched while he was at work and remained in that

condition. There was now a loss of sensation to pain, heat and touch up to a horizontal line round the elbow, but rather higher on the outer and posterior sides. The electrical reactions were fairly normal. After a fortnight's treatment by arm baths the reactions were still normal, and there was some return of movement, no pain, nor any wasting. The patient felt much better, the grasp of the left hand equalled 40, of the right 110. Tactile sensation was good down to a horizontal line two inches below the elbow.

This circular line of anæsthesia, corresponding to no nerve distribution, has been taken for a sign of hysteria, but I think it may occur otherwise in rare instances. We noticed it in a case of birth palsy and after the accidental division of a nerve during an operation, the patient being a merry, matter-of-fact lad, not very sensitive to pain.

Facial Paralysis.—Here in simple cases, if there is no reaction of degeneration, the results are uniformly good. The positive pole with not more than five milliampères of current is moved up and down over the pes anserinus. In crutch paralysis the arm bath is often sufficient, or the constant current may be applied transversely where the musculo-spiral crosses the outside of the arm. One remarkable case of paralysis of the serratus magnus after an injury gave the typical winged scapula when the arm was raised in front of the patient, and recovered power very slowly under local treatment.

Birth Palsy (Little's disease).—Few things need more care and patience in treatment than this, almost every muscle wants separate attention. The spastic condition of the limbs may depend on one or two muscles, the rest of the flexors perhaps, and all the extensors may be wasted, and it is very difficult to pick out the wasted ones and exercise them.

O. O., a boy of 12, came to me unable to sit up alone in a chair, though he crawled about on his knees and the back of his wrists. There was a spastic condition of all four limbs, but the left arm was less affected than the rest, and as he had good intelligence he had learnt to write a little with the left hand. After prolonged treatment he can now stand alone and walk with crutches, and is steadily gaining power. The contractions have been largely overcome by splints, and by exercising the weak muscles from the sinusoidal current. Well wetted electrodes are tied over the selected muscles, and as the street current is reduced to about ten volts or less and

cut off every two seconds, the muscles can be worked as in ordinary exercise as long as is desirable. Massage too has effected a great improvement, and as the spastic condition passes off rhythmic exercises are most necessary. Tenotomy may be needed in some cases, but much may be done without it by splinting and by improving individual muscles.

Lead Poisoning.—Since even the poultry in some parts of the Mendips are said to be killed by the lead they pick up, we cannot be surprised at the number of cases of lead paralysis which we meet with. Some of them are very slow to mend under any treatment. How is it that in a certain number we find reaction of degeneration in some extensor muscles, the rest, like the flexors reacting normally? I saw a patient last week whose grasp was only one quarter of the strength it should be. The electrical reaction of the flexors was normal, while every muscle on the back of the arm showed R. D. except the extensor ossis metacarpi, and the extensor carpi ulnaris. Each finger, too, differed from the rest in the amount of the drop, illustrating the extreme variations in the action of the poison on the individual nerve-muscle. I have obtained improvement in the dropped wrist in some cases by fixing the hand in a hyper-extended position on a splint "to take up the slack" of the over-stretched extensors, but the question is, How long can this splint be kept on without weakening the whole arm? Probably the best plan is to keep it continuously applied and stimulate the muscles daily at the same time until the drop has gone. Then constant exercise, such as carrying a bucket and squeezing a ball, should be added to the electrical treatment.

Rheumatoid Arthritis.—Here the results were most variable. Some recovered more or less completely, others showed no effect except that nearly all got more or less relief from pain. Some of the septic cases showed extraordinary improvement after a course of electric full-length baths, whilst the results from hot-air baths were less satisfactory, though in old quiescent cases with much anchylosis hot air may be valuable with or without a previous breaking down of adhesions, provided that some treatment is also applied to the wasted muscles, such as arm baths or massage. A difficult type to treat is that where deep mental depression exists. These patients are very sensitive to

pain, and cannot be induced to keep up any movements. If a joint is loosened to-day they keep it motionless until it is again fixed, however free passive movements are at first. High feeding, tonics, baths for the whole body with the combined current and massage seem to be the most effective treatment even for these.

Joint Cases.—For adhesions after the results of an injury have quieted down, hot air gives painless and steady improvement, though in some cases it may save time to break down the adhesions under ether and then complete the cure by hot air. In the electrical treatment of joints the constant current only is of use, and preferably this should be combined with cataphoresis. A nickel electrode with a pad soaked in iodide of potash or salicylate of soda is used as the positive pole, and a current of twenty milliamperes is sent through the joint. The poles must be reversed every five minutes for a short time to avoid certain results of polarisation. The very painful shoulders which follow an injury and subsequent attacks by some rheumatic or rheumatoid affection are thus relieved. I have had patients recently who under hot-air treatment followed by cataphoresis lost the pain and regained movement in a short time.

Mrs. C. came into the ward with both hip joints anchylosed, the right completely. The legs were usually crossed as in spastic paraplegia, but the reflexes were normal. She complained of paroxysmal pain down the thighs. How she contrived to sit or move at all was puzzling. I gave her hot-air baths in bed and massage and passive movements daily, under which the bones grated like a rusty hinge. The pains disappeared, the adhesions rapidly gave way, and in two or three weeks she walked about with a stick.

In conclusion, the curious results of the loss of the pain sense in a case of syringomyelia may be noticed. The patient was treated by arm baths for rigidity of the muscles of the hands, though there is no reason to expect there would be any effect on the course of the disease itself.

S. L., 30, a crane driver, suffered five years ago from spontaneous fracture of the right ulna, but feeling no pain he went on working for hours to the damage of his tissues. Three years ago the left arm had a similar accident, and his fingers kept getting crushed in cogwheels without his knowledge. He used to light his pipe, like his mates, by picking up quickly a hot cinder with finger and thumb, but found he burnt holes in

them as he did not know when to drop it. In one of these many accidents a little finger became poisoned and was left contracted. Seven weeks ago both hands became swollen, red, and dry, and all the fingers became fixed. Then crops of vesicles appeared on the region of the right radial nerve, and a few on that of the left. The feet were never affected, and there was no spastic state of the legs, the knee jerks being normal. The heat sense was absent on both surfaces of the hands and arms, defective over shoulders and front of thorax and down nearly to the umbilicus. The muscular sense was normal. There was some tactile anæsthesia when first examined in the area of both median nerves, wasting of the first interosseous and thenar muscles, and trophic changes in right elbow.

After arm baths for fourteen days he regained fair movements in the fingers. Otherwise he remains the same, and perpetrates fresh fractures and wounds quite cheerfully.

A CASE OF CÆSAREAN SECTION FOR OBSTRUCTION OF LABOUR BY A PELVIC TUMOUR.

BY

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A. W., *primipara*, aged 22, was admitted to the Bristol Royal Infirmary on June 12th, 1903, on account of pains which she took to be labour pains. Her medical attendant on examination found a large tumour completely blocking the pelvis. She estimated that her pregnancy had advanced to the eighth month, but was uncertain as to its exact duration.

On examination of the abdomen it was found that the fundus of the uterus reached to the ensiform cartilage, the head of the fœtus was found to lie above the pelvic brim in the second vertex position, the fœtal heart was easily heard and strong movements felt. On vaginal examination a tense, elastic, globular tumour was felt blocking the pelvis to such an extent that two fingers could only pass it with great difficulty. In front the cervix could just be reached; it was soft and the os patulous. The tumour though elastic felt hard. No labour pains were present, but the usual intermittent uterine contractions could be made out. The pains ceased after the

administration of an enema, which caused the evacuation of a number of scybalous masses.

As it was obvious that delivery *per vias naturales* was impossible, and as there was considerable doubt as to the real duration of pregnancy, it was decided to wait until labour came on and then deliver by Cæsarean section if necessary. The various alternatives were carefully considered. Vaginal puncture and delivery *per vias naturales* were rejected, since from the hardness of the tumour it seemed not unlikely that it might prove to be a fibroid, while if ovarian it was most probably a dermoid cyst. In the former case puncture would have been of no assistance, while in the latter, experience shows that vaginal puncture or incision in dermoids is often followed by prolonged suppuration, or even by sloughing of the tumour and the risk of infection and peritonitis, and, if adhesions should be present, the necessity for an abdominal section after delivery. The removal of the tumour by abdominal section and preliminary eventration of the pregnant uterus seemed undesirable. Premature labour would have certainly come on, a large incision would have been needed, owing to prematurity, the child's chance of surviving would be lessened, and since it was uncertain exactly how far pregnancy had advanced, the chances of the child's survival would be still further lessened should it prove that the duration of pregnancy was shorter than was supposed. Again, the presence of the head in the pelvic brim was likely to interfere with the extraction of the tumour if ovarian, while if it should prove to be a fibroid complete hysterectomy would be necessary. Even if by this method the removal of the tumour proved feasible, the superadded shock of labour which at this date in pregnancy appeared certain to come on after an abdominal section, and the amount of handling of the uterus that would be necessary, would prove a very serious added complication. It was therefore decided to wait until labour came on, and then to empty the uterus by Cæsarean section and deal with the tumour after this had been done. By this method only the emptied uterus would oppose the removal of the tumour if ovarian, while if fibroid the removal of the emptied uterus with the tumour would be a matter of far less difficulty.

Labour pains commenced on the evening of July 11th, and the membranes ruptured easily on the morning of July 12th.

Operation.—At 11.30 a.m. on July 12th the abdomen was opened by a seven-inch incision extending from an inch and a half above the umbilicus to an inch and a half above the symphysis pubis. A large ring pessary was then pressed firmly against the uterine wall and the uterus opened, the fœtus being seen lying within the membranes, which were opened after carefully packing sponges round the uterine incision, and the child extracted by the head. Two fingers were then hooked into the ends of the incision in the uterus and the latter pulled out of the abdominal wound. The edge of the placenta was seen to present at the wound; it was removed, and the uterus enveloped in towels wrung out of hot sterilised saline solution, kept firmly compressed by Dr. Nixon. It retracted well, and there was very little bleeding. The tumour was then removed with some difficulty owing to adhesions, its pedicle ligatured, and the end of the pedicle oversewn with fine silk so as to bury the raw surface of the stump in peritoneum. The uterine wound was then sewn up with four layers of suture—first a row of interrupted medium silk, then two layers of continuous catgut uniting the muscle but avoiding the mucous membrane, and, finally, a continuous peritoneal suture of fine silk burying the whole of the foregoing. (The interrupted silk sutures included the whole uterine wall and peritoneum, omitting the mucous membrane, and were used to reinforce the catgut sutures.) The peritoneal cavity was now flushed out with a couple of washing jugs full of hot sterile saline solution, and as the oozing from the adhesions had ceased the abdomen was closed by a continuous silk suture of the peritoneum and interrupted silkworm-gut sutures taking up skin, muscle and fascia. Previous to closing the abdominal wound the uterus was firmly compressed and a certain amount of blood expelled from the vagina. A hypodermic injection of ergotin had been previously given. During the operation, as the patient showed signs of shock, Dr. Stack performed saline transfusion.

In such an operation as this much depends on the ability of the assistants, two of whom are necessary in addition to the anæsthetist. To one of the two should be committed the care of the uterus, and his entire duty should be to keep up firm manual compression, the organ being enveloped in hot sterilised towels so long as it is outside the abdominal cavity; this can be done without interfering with the operation.

The success of the operation in this case was largely due to the able assistance rendered to the operator by Mr. N. A. W. Conolly (resident obstetric officer), to whom I am indebted for

the notes of the case, and Dr. Nixon, who commanded the uterus so successfully that the total amount of blood lost was not more than one usually sees in a normal confinement.

The patient suffered very little from shock after the operation. She had a slight attack of hemorrhage from the vagina in the afternoon, but it was not sufficient to cause anxiety. Her further progress was uneventful until the seventh day, when some fœtor of the vaginal discharge was noticed and the uterus washed out. The sutures were removed on the tenth day, and on the thirteenth a stitch abscess developed, from the sinus of which the silk peritoneal suture was removed. Her further progress was unimpeded. The child, a well-developed male, thrived surprisingly (at date of writing he is 6½ months old).

I examined the patient a few weeks ago. The uterus was then movable, of normal size and in normal position. A little thickening could be felt about the ovarian stump.

The tumour was a dermoid cyst of the right ovary, containing in one part hair and the other constituents of a dermoid cyst, while the remainder seemed to be composed of the ordinary constituents of a multilocular cyst.

A CASE OF CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS.

BY

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(Physician to Out-patients, Bristol Hospital for Sick Children; Pathologist to the Bristol Royal Infirmary),

AND

NEWMAN NEILD, M.B., Ch.B.Vict.

(Assistant Physician and Pathologist to the Bristol General Hospital).

CASES of congenital hypertrophic stenosis of the pylorus have been so frequently noticed of late that the mere record of a case is of little or no interest. Possibly, however, the

accompanying photographs justify the publication of a few brief notes of an example of this disease.

Early in January of this year a male infant, aged eight weeks, was seen in the out-patient department of the Bristol Hospital for Sick Children, having been brought there by its mother for vomiting and wasting. As is said to be usually the case with infants in which there is congenital stenosis of the pylorus, the child was described as a "beautiful baby born." Apparently it retained the milk in the stomach during the first three weeks of life, at the end of which time vomiting commenced. When seen at the Children's Hospital the child was considerably wasted, and on palpation of the abdomen a small mass could be felt just below the right costal margin near the external border of the rectus muscle, which it was thought might be a hypertrophied pylorus. No peristalsis of the stomach could, however, be elicited. Further questioning of the mother brought out the fact that the child did not always vomit immediately after taking food, sometimes not until an hour had elapsed, or even at comparatively long intervals during the day—that is to say, vomiting did not necessarily follow every feed of milk. The mother refused to allow the child to remain in the hospital, but three weeks later returned with the infant, remarking that she had noticed —what she had been told to look for—occasional swelling in the epigastrium. Almost immediately the abdomen was uncovered the truth of her observation became obvious. A swelling the size of a hen's egg appeared, which travelled from the left costal margin to the external border of the right rectus muscle.

Two or three days after admission photographs were taken of the infant's abdomen during peristalsis. Unfortunately the day was dull and rainy, yet with exposures of a quarter of a second photographs were obtained in the ward which give a good idea of some of the appearances of the epigastrium during peristalsis of the stomach. It would have been better perhaps had we obtained a photograph also of the epigastrium when the stomach was at rest. There was then no fulness whatever in the epigastrium.

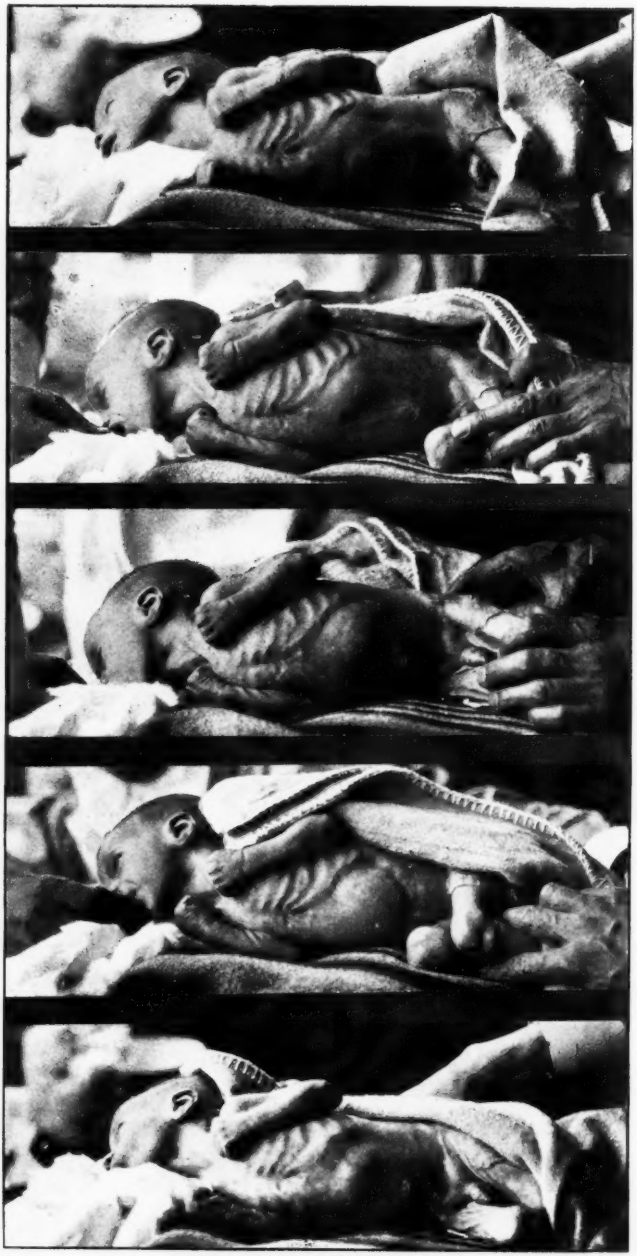

FIG. I.
Two waves of peristalsis.

FIG. II.
Swelling near the left costal margin, due to partial contraction of the stomach.

FIG. III.
The greater part of the stomach standing out, owing to muscular contraction.

FIG. IV.
Rather more of the stomach brought into prominence.

FIG. V.
Peristalsis passing towards the pylorus.

FIG. VI.

The lower stomach shows the greatly hypertrophied pylorus. The stomach also is very large for a child of three months of age. Above is the stomach of a child aged fourteen months, placed there to give some idea of the increased size of the pylorus in the lower specimen.

The child was obviously in too weak a condition for operation, and although nutrient enemata were administered and sterilised oil was injected under the skin, the emaciation continued, and death took place during the twelfth week of life.

On the day before death peristalsis had ceased, but the stomach was then, curiously enough, always clearly visible and much larger than before, extending about one inch below the umbilicus. At the time of the autopsy it was larger still, and occupied the whole abdomen. The intestines throughout were collapsed and contained no fæces.

A reference to the accompanying photograph will give a better idea of the appearance of the stomach than a written description. The greatly hypertrophied pylorus is clearly seen. For comparison the stomach of a much older child, a girl aged fourteen months, is placed above the specimen. It will be noticed that the pylorus in the child of three months of age is much larger than that of a child nearly five times as old. The comparative size of the two stomachs, however, should be neglected. The larger stomach was distended when fresh, found to contain fourteen ounces, and was hardened when full of the fluid. The smaller stomach, in which it may be remarked are tuberculous ulcers, has been laid open, and in its collapsed condition the hardening fluid in which it was preserved has contracted it. Had both stomachs been distended before being hardened they would have been more nearly of the same size; but fourteen ounces is considerably above the average capacity of a stomach of a child of fourteen months, so that even when distended the stomach of the older child would still have been the smaller.

We are indebted to Dr. Fortescue Brickdale for the photographs here reproduced.

A CASE OF ÆSTIVO-AUTUMNAL MALARIAL FEVER WITH PARASITES OF AN UNUSUAL TYPE.

BY

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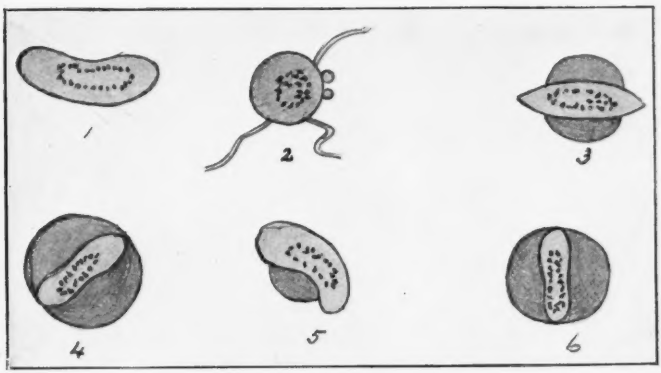
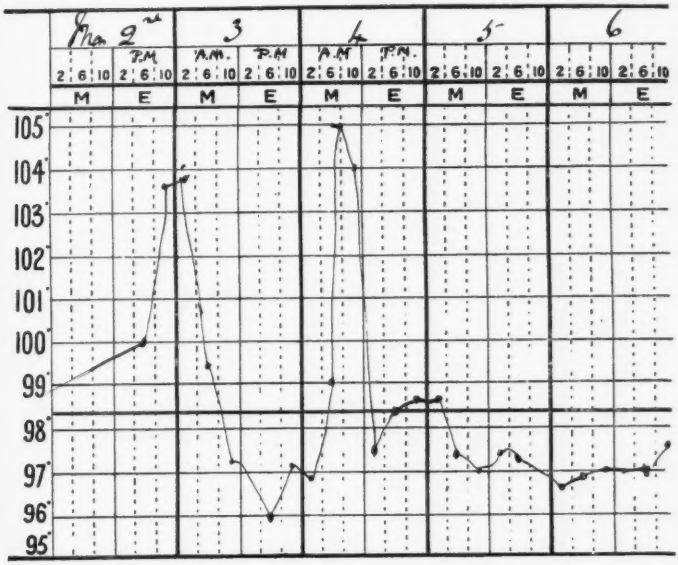
W. T., a seaman, aged 58, was admitted to the Bristol General Hospital on March 2nd, suffering from malaria. Some months previously he had arrived at Panama (Central America), and fearing fever, which was at the time peculiarly fatal there, he left his ship and tramped across the isthmus to Colon, where he worked for a few weeks. At Colon he developed fever, and was sent to hospital. In hospital he had daily attacks of ague, for which he was treated with quinine, "eight pills three times a day." The quinine caused deafness, but as the fever was not influenced he was shipped to Jamaica on his way to England. During the voyage he was still treated with quinine, but the fever became worse, and he was disembarked at Kingston and sent to the hospital. There was some slight improvement in his condition during his stay at Kingston, but he had daily attacks of ague and was finally shipped to Bristol. During his stay in Jamaica and on the homeward voyage he was regularly dosed with quinine. Throughout his illness he was troubled with dyspepsia and vomiting. On admission the patient was extremely weak, the mucous membranes were blanched, the skin of a bronzed yellow tint. There were a few hemorrhages in the legs. The spleen could be felt below the costal margin, and was tender. The heart was dilated. The patient could only retain liquid food, and this in small quantities. The tongue was thickly coated, the bowels constipated, and the abdomen distended. He complained of buzzing in the head, and could not hear the ticking of a watch placed one inch from the auricle. On the day following admission (March 3rd) the patient was given 5 grains of quinine and $\frac{1}{20}$ grain of arseniate of soda three times a day. He had an attack of ague in the morning, the temperature





DR. J. O. SYMES' CASE OF ÆSTIVO-AUTUMNAL MALARIAL FEVER.

rising to 103.8°, and on the following morning during a second attack it rose to 105°. These were the only occasions on which fever was noted.

The blood was examined on March 4th. In the fresh blood numerous small intra-corpuscular non-pigmented parasites were seen, together with very many crescentic and ovoid bodies. The pigment in the crescents and ovoid bodies showed very lively movement, and this continued for more than an hour after the blood had been drawn. Flagellate bodies were observed to bud out from the ovoid bodies, and to move away in the serum. The peculiar feature of the blood was the presence of sausage-shaped parasites with scattered pigment lying within the red cells (fig. 4), and of cigar-shaped parasites lying across the corpuscle with their ends projecting beyond the periphery (fig. 3). Such forms of parasites have been described by Rowley[1]. Stained films showed the same forms, but the sausage-shaped bodies have not entirely preserved their original shape. Rowley thinks that possibly this elongated parasite is developed from ring-forms, and is destined ultimately to become a crescent. A differential blood count showed—Finely granular oxyphil leucocytes 55 per cent., coarsely granular oxyphil leucocytes 3 per cent., lymphocytes 37.5 per cent., myelocytes 2.5 per cent., nucleated reds 1 per cent.

The subsequent history of the case was uneventful. It having been determined that he was suffering from æstivo-autumnal fever, the administration of quinine was stopped (March 9th) and the arsenic alone administered. He was given a full diet, including milk, Mellin's food, custard, eggs, chops, etc. The deafness gradually disappeared, and he was sent to the Convalescent Home on March 19th. On the day of his discharge there were still a few crescentic and ovoid bodies in the blood. He states that there was a slight return of fever on March 26th, but this is uncertain. On March 28th no parasites could be found in the blood, and the patient appeared in excellent condition.

The case is primarily of interest on account of the unusual types of organism present, which differ from those I have seen in

[1] *Johns Hopkins Hosp. Bull.*, 1904, xv. 22.

other cases of æstivo-autumnal fever. It also illustrates the necessity of a microscopical examination of the blood in all cases of malaria, and the futility of treating cases of æstivo-autumnal malaria by quinine alone. The lymphocytosis is very characteristic but not absolutely diagnostic of malaria.

NOTES ON A CASE OF BLACKWATER FEVER.

BY

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THE following are notes of a case of Blackwater fever, occurring in this country three weeks after arrival from West Africa:—

The patient had been, for the greater portion of the last nine years, engaged in mining operations in Ashanti, during which time he repeatedly suffered from malarial fever of the daily type. He had been very careless in adopting the usual antimalarial precautions, viz., routine doses of quinine and sleeping under a mosquito net. He did not always take quinine even during the attacks. So severe, however, were the malarial attacks during the last three months of his residence on the coast that he decided, on medical advice, to return to England, where he landed on December 15th of last year, feeling better for the voyage. On January 5th of this year he got wet and went home to bed. Next morning, January 6th, feeling much better, he went downstairs. Soon after breakfast he had a rigor and vomited; sickness continued all day.

When I saw him at 2 p.m. the vomit was dark green, pulse 120, temperature 103°. His skin was yellow, conjunctiva slightly tinged, mucous membrane of lips very anæmic.

There was nothing abnormal to be heard in the chest; there was tenderness over the liver; pressure made him feel sick; no enlargement of the liver or spleen. He complained of pain in both loins. The urine was dark red and thick. Under the microscope the urine showed a fibrinous network with black

pigment spots scattered here and there. There were no casts and no red blood corpuscles. Bowels had been opened twice during the morning; peasoup motions. I gave the patient five grains of quinine. He had a restless night. Next day, January 7th, sickness continued; urine still red but lighter colour; temperature 99°, pulse 104; had a better night. January 9th, morning urine just tinged; temperature 99°, pulse 112. At midnight the urine was clear; all the bad symptoms were rapidly subsiding; in three weeks the patient was well.

In this case I had the valuable advice of Mr. Walter Fisher, who has, during a residence of eight years on the Zambesi, treated thirty cases of this disease with only two deaths. Mr. Fisher always uses quinine hypodermically, and is convinced of its value. He injects five grains once daily; by this method the vomiting is not aggravated. He lays equal stress on keeping the bowels thoroughly well open with small daily doses of calomel, and giving a soap and water enema once or twice daily so long as the peasoup motions continue, in order to keep the large bowel empty and so prevent any absorption of poisonous matter.

Mr. A. R. Sieveking, late principal medical officer to the Uganda Railway, tells me he treated during six years fifty cases of Blackwater fever, and is convinced of the value of hypodermics of quinine.

The disease only occurs in those who have been debilitated by malaria; it may come on in this country many months after leaving Equatorial Africa, and may even prove fatal. The disease has apparently become much more prevalent in Equatorial Africa with the march of civilisation. The turning up of virgin soil, during the construction of railways and other public works, seems to let the specific poison free. The exact nature of the poison is unknown. Authorities differ as to the advisability of giving quinine, some even asserting it aggravates the tendency to hæmolysis. Considering, however, that the subjects of Blackwater fever have always suffered from malaria, quinine seems a rational drug to give, and the experience of Mr. Fisher and Mr. Sieveking in different parts of Equatorial Africa certainly supports this contention.

NOTE ON THE CONDITION OF THE BLOOD CORPUSCLES IN DR. E. C. WILLIAMS' CASE.

By J. M. FORTESCUE-BRICKDALE, M.A., M.D. Oxon.

THE blood films prepared from this case were not taken till after the subsidence of the fever; they were fixed immediately and stained with Jenner's blood stain or eosin and methylene blue. As is not unusual, malarial parasites could not be found, but the corpuscles showed several interesting features. The formation of rouleaux had recommenced, showing that the attack was subsiding, and poikilocytes, though present, were not numerous. The majority of the erythrocytes were deficient in hæmoglobin, the centre showing a more or less circular area of faint blue colour. The exact significance of this appearance is doubtful, but it seems probable that it is due to some destructive process possibly antecedent to the extrusion of blood-platelets. The latter, however, were not observed. The change is apparently distinct from "polychromasia" and allied to the granular degeneration of Grawitz. This appearance was also well seen in the present instance, many corpuscles being dotted with fine granules. Though there is some divergence of opinion among cytologists on the point, it is clear that this phenomenon occurs in many anæmic conditions (especially post-malarial hydræmia), and is possibly produced by karyorhexis, or the breaking down of the nuclei, especially in megaloblasts. It is noteworthy that some corpuscles showing granular degeneration here were of large size. There was a large number of small basophil bodies lying free in irregular-shaped groups. They were spheroidal or elongated in shape, and represented the bodies known as "blood dust" or hæmokonia. They are variously regarded as products of leucocyte degeneration, of the fragmentation of erythrocytes, or of albuminous particles precipitated from the plasma. The leucocyte count showed a remarkable increase in small mononuclears at the expense of polynuclears, the numbers being about equal. The eosinophils were only .75 per cent. and the large mononuclears about normal (5.5 per cent). Badly stained corpuscles and deformed fragmented leucocytes ("shadow cells") were observed. The nuclei in

the polynuclears were frequently entirely separate. Generally, then, the cells both red and white showed extensive degenerative changes, but the formation of rouleaux showed that *restitutio ad integrum* had begun.

Progress of the Medical Sciences.

MEDICINE.

Complications in Typhoid. A comparatively unrecognised danger has been discussed by Thayer[1] who, by examining the condition of a hundred and eighty-two persons who had previously suffered from typhoid, shows that the disease has some **tendency to produce arterio-sclerosis**. Thus he found that the average systolic blood pressure was higher in them than in a number of normal individuals. This was constant in every decade of life, and in many instances the rise was markedly abnormal. The radial arteries could be palpated nearly three times as often as in healthy persons, and the size of the heart was on the average increased since the illness. Cardiac murmurs were frequent, eight cases of mitral insufficiency alone being noted among those whose hearts were normal during the attack, while those in whom a systolic apex murmur was noted during the illness showed a marked increase of blood pressure and of the size of the heart. The writer concludes that these post typhoid cases were materially aged by the disease as regards the heart and arteries, and that it is a probable cause of a fair number of cases of hypertrophy and dilatation in early and middle life. Landouzy had previously noticed cardiac changes in a few old cases of typhoid, and it will be important to see whether other observers corroborate these results. Possibly, as Manges says, all the acute infectious diseases tend to cause these arterio-sclerotic changes; but, after all, when we consider the frequency with which degenerative changes in the heart muscle are known to occur during typhoid, the results of Thayer's investigation into the after-state of convalescents are not astonishing.

To turn to another group of sequelæ, the nervous affections. "There is scarcely any other febrile affection, except perhaps influenza, which is followed by so many nervous sequelæ as typhoid" (Dreschfeld). Still, these are usually temporary, though they predispose the patient to functional disorders such as hysteria and melancholia. However, disseminated sclerosis, myelitis, hemiplegia, and even bulbar paralysis have been recorded. Neuritis, especially of the ulnar and peroneal nerves, ptosis,

[1] *Am. J. M. Sc.*, 1904, cxxvii. 391.

and affections of the recurrent laryngeal are not very rare, and the typhoid spine is possibly due to nerve lesions.[1]

Rigors may be considered as belonging to the same group. They are rare, the cause is in most cases unknown, and they do not greatly affect the prognosis, except when due to some definite complication. Ch. Bolton[2] analyses the literature of the subject, and describes a case where twenty-one rigors occurred. The first one came on with a hemorrhage during diarrhœa; later ones were without any complication. He takes the view that some irritation of the intestinal mucous membrane is the exciting cause in many instances. Even undressing, sponging, an enema, or the passage of a motion may suffice when the thermotaxic centre has been rendered unstable by the poison of the disease. Thus Herringham points out that they are commoner during lysis. Bouveret noted the same fact, though he would look on them as partly due to the sudden absorption of a large dose of toxin. Church recorded fifty-three rigors in the course of one case which ended favourably, while Osler notes their occasional occurrence at the onset of the disease or of a relapse. In a number of secondary cases the rigors are due to complications such as thrombosis of the mesenteric veins, small abscesses and septic absorption, and even perforation itself. Hence if a rigor occurs the first thing is to decide whether it is due to one of these definite complications, or is merely the symptom of an unstable nerve state under the strain of the illness.

Perforation.—According to the figures quoted by Hector Mackenzie,[3] out of a hundred cases treated in the London hospitals there are 13.4 deaths, and under the Metropolitan Asylums Board 15.6, while under the Brand bathing system, thoroughly carried out as in some continental countries and at Montreal, at Brisbane and at the Johns Hopkins Hospital there are only about seven deaths, that is, seven lives in every hundred sick are saved. If the mortality in the rest of England and Wales is as high as in London this would amount to the annual loss of some 3,000 lives owing to difficulties in carrying out the best plan of treatment. If any advocates of ice cradles, wet packs or affusion, could show statistics approaching these they would be eagerly welcomed. The reduction of mortality, however, is chiefly due to the elimination of toxines, and to the fewer deaths from toxæmia. The complications, such as perforation, are hardly affected. Thus the mortality in the London hospitals from perforation is 4.5 per hundred, and very little less abroad. There are some 1,500 deaths from it every year in England and Wales. Have we any means of preventing them?

All authorities agree that at present our only remedy lies in early diagnosis and immediate surgical treatment. If we wait till general peritonitis has set in it is usually too late to

[1] Pearce Bailey, *Med. Rec.*, 1903, lxiv. 835.
[2] *Practitioner*, 1904 lxxii. 106. [3] *Lancet*, 1903, ii. 863.

do any good. The complication rarely occurs before the tenth day, most often it is seen during the third week or at the beginning of the fourth, or in a relapse about the end of the second week. Now the symptoms are most varied and sometimes indefinite, so that physicians and nurses need to be constantly on the look-out for them. If early recognition and efficient surgical treatment were the rule it is estimated that 400 or 500 lives could be saved annually. Harte and Ashhurst,[1] in commenting upon 364 cases thus treated, point out that suspicion should attach at once to stabbing or sudden pain in the abdomen, especially in apathetic patients who have some distension of the bowels or loss of control of the sphincters. This pain may vary enormously in amount, and may be situated in the lower and especially in the right side of the abdomen, or may be referred to the bladder or even to the end of the penis. Vomiting, nausea, hiccough, diarrhœa, rigors, a sudden rise or fall of temperature, a marked change in the facial expression, or an increase in the pulse or respiration rate, may any of them accompany the pain. An area of abdominal tenderness, most often in the right lower quadrant, may be suddenly developed. Still more important is any rigidity of the recti muscles, especially of the right one, when not produced by careless palpation. Softness of the abdomen and free respiratory movements, and the absence alike of distension and retraction, are favourable signs. The sudden development again of dulness in the flanks shifting with the patient's position must never be neglected. All these points should be considered before the arrival of the stage of general peritonitis with the board-like abdomen and general septic state. Any one of the symptoms may be absent, almost any one of them may be due to other causes. We must weigh and collect all the possible evidence, noting such things as the drawing up of the legs, or a running, thready pulse. The liver dulness may be examined, but little reliance can be placed upon it. The blood count is not yet an exact index of the condition, though a steadily increasing leucocytosis made up chiefly from polynuclear cells is not to be overlooked, but it may occur also from phlebitis, cholecystitis, and other complications. A recent suggestion by J. B. Briggs, of Johns Hopkins, may, if confirmed, prove to be a valuable sign. He claims that perforation is accompanied with a sudden rise of blood pressure as shown by the sphygmomanometer.[2] Cushing had previously noted a sharp rise in blood pressure when the peritoneum is irritated during abdominal operations. Briggs took observations on some typhoid cases, and in one where perforation actually occurred found that the pressure suddenly rose from 106 to 144 mm. before any other symptoms appeared, while in another where some signs of perforation were present and laparatomy was performed, but no perforation was found, there was no rise. It is not likely that any ordinary complication could thus affect the blood pressure,

[1] *Ann. Surg.*, 1904, xxxix. 8. [2] *Boston M. and S. J.*, 1903, cxlix. 343.

and further confirmation of the theory will be eagerly awaited as affording one reliable and early sign.

Ankylostomiasis. Human parasites seem to find little difficulty in accompanying their hosts to this climate whatever are the difficulties in acclimatising the higher plants and animals. At the present time, owing to the facilities of travel, we are threatened with hosts of new companions. Our old invaders, the bug and the rat, are being followed, not only by the bacilli of plague and cholera, but by the bilharzia, the filaria, the nematode of "craw craw," the ankylostoma, and others. We may disregard the trypanosoma in our midst if the infection cannot be spread, but it is now said that the infection of bilharzia is liable to conveyance by the urine or fæces. In the neighbourhood of Birmingham the West Indian "craw craw" has gained a footing, and patients are there found tormented with an intolerable itching which is succeeded by crops of vesicles on the trunk and limbs.[1] The disease has been brought by travellers returning from the tropics, while soldiers from the Rustenberg district in South Africa are largely responsible for the bilharzia. Far more serious than these, especially in a mining district like ours, is the invasion by the ankylostoma, which threatens to become a veritable scourge. Before long, if the disease is not checked, extreme anæmia will be more common among male out-patients than the chlorosis of women. The original habitat of the worm lay in districts not more than 35° from the equator, but since its discovery in the labourers at the St. Gothard tunnel it has spread over the southern states of America, over Hungary, Germany, Belgium, France, and now it is rife in Cornwall, and has even been found in Scotland. The adult worms live in the upper part of the small intestine, each worm having a life span of some years, and the females produce an enormous stream of eggs which hatch at a temperature of 60° and upwards, and are conveyed in the larval form to new hosts by contaminated food and water. Boycott and Haldane,[2] in describing recent investigations upon the life history of this parasite, show reason to believe that the infection can also be conveyed through the skin, which increases very largely the difficulties of dealing with it. Bentley found that the water-itch, which attacks the bare feet of coolies in the Assam tea gardens, can be produced by applying to the skin moist earth mixed with the ova of the ankylostoma, and the worm has been found in the intestine of the patient after such treatment. Thus it would appear that water-itch itself is but one of the results of the parasite. Among the Cornish miners who are infected, though the feet are protected by boots, troublesome skin eruptions called "bunches" are common and are probably due to the same cause. Nearly all the men in certain mines are attacked, though some become immune and show few symptoms while still harbouring the parasite. Others develop

[1] Walker Hall, *Med. Chron.*, 1904, 4 s., vii. 2. [2] *J. Hygiene*, 1904, iv. 73.

extreme anæmia, breathlessness, and gastro-intestinal troubles with eosin changes in the blood, with sometimes a fatal termination. In some Westphalian collieries 17,000 men were found to be infected, while in certain tropical countries nearly the whole population are attacked, to the great increase of the mortality and to the serious lessening of the efficiency of the labourer. In colder countries there is a slight natural protection, for it is only in warm mines that the eggs can develop into larvæ, and it is chiefly as larvæ that they can most easily get an entrance into the body of a new host. Still, even in the neighbourhood of Cologne, the brickfields have proved to be nurseries of the disease. In warm summers in this country the eggs might hatch in the open air, but the great danger will always be in the mines, and especially damp ones. Thus an outburst of the disease occurred in certain Westphalian mines, where the dusty roads were watered to prevent explosions of gas. The discovery of eggs in the fæces is easy if watery films are placed under the microscope, when they are seen as oval, smooth bodies, about 59 by 37μ in size, with a pellucid shell bounded by a single line, and grey contents. The worms themselves are whitish, and about half an inch long, with two pairs of pointed hooks on the ventral surface of the mouth. They are found in the fæces after a dose of thymol if the bowels act quickly; otherwise they are broken up and digested by the pancreatic juice soon after they are killed by the thymol. In Cornwall the treatment consists of a preliminary purge and then three doses of thymol of thirty grains each at intervals of two hours, and finally another aperient, alcohol and castor oil being carefully avoided to prevent the risk of poisoning from their combination with thymol. These doses must be repeated at intervals till the stools are free from eggs. In Westphalia large doses of male fern are given more than once, but the risks of collapse and even blindness are somewhat serious. In short, any effective treatment is difficult and unpleasant, and though by vigorous measures the disease in Westphalia has been greatly reduced, prevention is all important. To stop the pollution of the mines by the fæces of infected persons, to provide underground privies properly disinfected, and to warn the men of the danger of eating with hands soiled by the earth are among the most important safeguards. It may be necessary to allow no new hands to begin work until their fæces have been tested, especially if they come from infected mines. Boycott and Haldane think that the good ventilation of most English coal mines reduces the risk of infection by drying the ground and lowering the temperature, but even this cannot always be relied upon. In short, we are threatened by a very serious danger, and the means of meeting it do not appear so complete and so effective as we could wish. Hence the necessity of recognising, treating, and isolating every case as early as possible.

G. PARKER.

SURGERY.

Mr. P. J. Freyer has now published a large number of very successful cases of **Prostatectomy**, but a series of papers recently published[1] by other surgeons with reference to Freyer's operation are also of interest. Mr. Barling, of Birmingham, records ten cases, with three deaths, but only one death could really have been caused by the operation, and that was from uræmia in the third week after operation. Mr. Moynihan publishes twelve cases with one death. The immediate result of the operation in Mr. Barling's cases was very good, and in some cases examined many months after the operation great improvement was maintained. In one case slight incontinence at night occurred, but this was quite an exception. Mr. Moynihan gives so little account of the condition of the patients after operation that the value of his paper is greatly diminished. All he states is when the wounds healed. Mr. Barling found that if the enlargement was considerable and the gland elastic, enucleation might be easily accomplished, but that in the firmer variety of prostatic enlargement it may require all the force of which the fingers are capable. Mr. Moynihan writes of the operation that the enucleation is easily performed, and that the larger the prostate the easier the stripping. In one case in which I enucleated a large prostate weighing four ounces, it shelled out easily in some parts, but in others required considerable force to dislodge it; in another case in which it was much smaller, after using considerable force I had not succeeded in entirely separating it, and as I did not care to use more force, I contented myself with cutting off a projecting collar of intravesical growth. The patient had been unable to pass any urine for some time before operation, and catheterisation was often difficult. His condition has been greatly improved by the operation, and he now passes urine but with a feeble stream. No doubt complete prostatectomy would have given a better result. I had been so impressed in this case by the fact that great force may be required to shell out a prostate only moderately enlarged, but which is yet causing retention, that in another case on which I operated soon after I enucleated simply a projecting so-called "middle lobe" which was acting as a ball valve obstruction, and thus enabled the patient to pass urine, but not to empty the bladder. In two of the cases stones were detected in the bladder before operation, so that the operation was a lithotomy as well as a prostatectomy. In the case in which I removed the very large prostate, some incontinence followed, but his condition was very greatly improved. It is interesting to note that one of Mr. Barling's patients, from whom he removed an enlarged prostate which was composed almost entirely of overgrowth

[1] Barling, *Brit. M. J.*, 1904, i. 232; Wallace, *Ibid.*, 239; Moynihan, *Ann. Surg.*, 1904, xxxix. 1; Walker, *Lancet*, 1904, i. 869.

of connective tissue, and which had made the patient entirely dependent on the use of the catheter, was only 46 years of age, and Mr. Barling states that he has had other cases of prostatic enlargement in men just over 40. Another of Mr. Barling's cases is also remarkable, as although the patient (a man aged 60) had been dependent on the catheter for many weeks, yet the prostate after removal weighed very little more than normal, though it had felt moderately enlarged and very hard per rectum. The enucleation, Mr. Barling tells us, was very difficult owing to its firm fixation to adjacent part. Bleeding does not seem to have been serious in Mr. Barling's cases. He thinks that from four to six ounces of blood is usually lost during the enucleation, which must proceed in spite of the oozing, but that when the prostate has been freed this lessens, and what remains can be readily controlled by sponge pressure or hot douching. Mr. Moynihan says that in his cases as a rule there was very little bleeding, but that in two there was free hemorrhage for twenty to thirty minutes. In a case of my own, to which I have already referred (removal of large prostate), the hemorrhage was very free indeed, and required prolonged sponge pressure and hot douching to check it.

Mr. S. Shattock has shown from an examination of some of the specimens of enlarged prostate removed by Mr. Freyer that though it was thought that the prostatic urethra had not been removed it was there in his specimens, but so thin and spread out over the adenomatous masses as only to be recognised by microscopic section; and it became evident that what had been supposed to be the prostatic urethra torn away with some of the prostates was really a part of the membranous urethra, and both Mr. Barling and Mr. Moynihan regard removal of the prostatic urethra as an almost necessary part of the operation. Mr. Barling, however, maintains that no stricture follows this tearing out of the prostatic uretha, and occasionally part of the membranous urethra, and the later records of cases published by Freyer and others seem to justify the belief.

Whether the whole prostate is removed in this operation, as Mr. Walker has lately maintained [1] in a paper read at the Royal Medico-Chirurgical Society, based on an examination of seventy of Freyer's specimens, or that a capsule of prostatic tissue is always left behind, as Wallace endeavoured to prove in a paper read at a meeting of the Pathological Society last winter,[2] it seems difficult to say. Possibly, as suggested by Reginald Harrison[3] in some cases in which the enucleation is easy, adenomatous masses (generally including the prostatic urethra) are shelled out of a capsule of flattened-out prostatic tissue, whereas in the more difficult cases the whole gland is shelled out from the sheath of recto-vesical fascia. Not only have Mr. Walker and Mr. Wallace examined many specimens of prostates removed by Freyer's method, but they have also

[1] *Loc. cit.* [2] *Loc. cit.* [3] *Lancet*, 1904, i. 869.

examined what is left behind after removal of the prostate, and this one would think ought to settle the vexed question. Mr. Walker has done so in four cases, and he reports [1] that "the prostatic urethra was left behind entirely in one, partly in one, and completely removed in two. The posterior wall of the cavity (from which the prostate had been removed) was formed at the upper part by the seminal vesicles enclosed in the recto-vesical fascia. This fascia was continued downwards to form the lower part of this wall. A layer of unstriped muscle was continued downwards from the bladder wall at the upper part of the circumference of the cavity. The lateral walls were formed by the pelvic fascia, outside which were the levator ani muscles. The anterior wall consisted of layers of fascia, which enclosed between them the vertical part of the prostatic plexus." In one case a small adenomatous nodule was found left behind after the enucleation. Mr. Wallace enucleated an enlarged prostate in a dead body exactly as the operation is performed in the living, and found that a shell of expanded prostatic tissue was left behind.

There is one very remarkable specimen figured in Wallace's paper of a prostate removed from a man of 65, for "dribbling retention." It is certainly not an enlarged prostate. That the operation in this case could have consisted in the shelling out an adenomatous mass or masses from a capsule of prostatic tissue seems obviously impossible; the specimen suggests that a prostate of normal size (5 drachms in weight) was enucleated.

* * * * *

In the lectures on the **Surgery of the Pancreas**, recently delivered at the College of Surgeons by Mr. Mayo Robson, are some statements of much practical importance. Mr. Robson tells us [2] that by a chemical examination of the urine it is possible to diagnose the presence of disease of the pancreas, and even to distinguish between malignant disease and chronic inflammation of the gland. We are told that by this reaction in the urine acute pancreatitis, which has in the past been so often mistaken for intestinal obstruction, may be differentiated, and several cases are recorded to illustrate the value of the test in distinguishing between malignant disease of the head of the pancreas causing obstructive jaundice by pressure on the common duct, and induration of the head from chronic inflammation acting in the same way, or from gallstones in the common duct. Two cases are recorded in which a diagnosis of malignant disease was corrected by the application of the test, and operation which was thus seen to be indicated was successfully performed.

The test has been worked out by Dr. Cammidge, and is fully described by him in his lecture delivered before the Royal College of Surgeons on the chemistry of the urine in disease of the pancreas.[3] The test depends on the presence of minute

[1] *Loc. cit.* [2] *Lancet*, 1904, i. 780. [3] *Lancet*. 1904, i., 782.

quantities of glycerine in the urine in pancreatic disease, and by the action of chemical reagents crystals are obtained of diagnostic significance. We must refer readers to the lecture for the minute details of the process. That certain substances should be present in the urine if the functions of the pancreas are imperfectly performed, or if any of its secretion should escape and act on the tissues is not more than we might expect, but that by a chemical test of the urine we should be able to distinguish between the diseases which impair the function or cause such escape of secretion—between acute and chronic pancreatitis and between the latter and malignant disease—seems almost incredible, especially when we find that it is the time which the crystals take to dissolve in dilute sulphuric acid which enables such differentiation to be made. Yet Mr. Mayo Robson seems to have derived very great assistance in diagnosis from the work of Dr. Cammidge. We should, however, be very reluctant to trust to the diagnosis of those who had not done considerable work in the application of this test.[1]

Very little has as yet been written about pancreatic calculi, and therefore the information given by Mr. Robson on this subject is of sufficient importance to demand a brief reference. As is well known, such calculi may give rise to symptoms very like those of biliary colic, but the pain tends to radiate to the angle of the left scapula, and they are generally associated with other diseases of the gland—chronic inflammation, cysts, or abscess—and are usually multiple. An important fact pointed out by Mr. Robson is that, unlike gallstones, they may be detected in a skiagram, as they contain lime salts. They may pass into the diverticulum of Vater and cause obstructive jaundice, and become covered with cholesterine and stained with bile, so that they may resemble a gallstone. After a thorough search through English and foreign literature, Mr. Robson could only find five cases of removal of these pancreatic calculi. If the stone lies in the main pancreatic duct just at its junction with the common duct it may be reached by first opening the duodenum, and then the opening of the common duct enlarged and the stone extracted from the duct of Wirsung. Or a stone in the pancreas may be removed through either the gastro-hepatic or the great omentum, by direct incision into the pancreas, followed by careful suture of the duct and divided pancreatic tissue. Sometimes it is suggested the stone may be

[1] Since the above was written Dr. C. Ham and Dr. J. Burton Cleland have written from the Pathological Institute of the London Hospital, and Dr. Grenner from his Pathological Laboratory, Leeds Infirmary, stating that they have found the crystals described by Dr. Cammidge present in almost any urine (*Lancet*, 1904, ii. 1378). Dr. Cammidge maintains that the crystals they have produced are not the same as those he has obtained in pancreatic disease, and that their method is in fault. It is as I stated above quite clear that if his test is reliable it can only be carried out by one as familiar with it and its possible sources of error as Dr. Cammidge.

better reached by dividing the reflection of peritoneum over the second part of the duodenum, and thus gaining access to the head of the pancreas either on the inside of the second portion of the duodenum or from behind it.

There is another fact of such importance in Mr. Robson's lectures that we must also refer to it. From his own experience and that of Murphy of Chicago it seems quite certain that no good is to be gained by draining the gall-bladder in jaundice due to pressure of the cancerous head of the pancreas on the common duct, for the mortality of the proceeding is very high, and if recovery from the operation occurs life is not prolonged to any great extent.[1] At the same time it must be pointed out that chronic inflammatory induration of the head of the pancreas is now well known to cause symptoms resembling those of malignant disease of the head of the pancreas, and that in cases of doubt exploration is indicated, for recovery has often followed drainage of the gall-bladder in the former condition. But Mr. Robson now considers that exploration is hardly required, as the chemical examination of the urine ought to enable us to decide between these two conditions.

C. A. MORTON.

OBSTETRICS.

In 1896 there appeared in this *Journal* an account of the then recent work on "**Deciduoma Malignum, (or Chorion-epithelioma,)**" with a statement as to the views held of its nature and origin.

A noticeable feature of the opinions current among British pathologists was that they differed in a very material degree from those of continental observers, the general tendency of British opinion being that this affection was to be considered as a condition in which sarcomatous or carcinomatous changes arose in the uterus in connection with, but not necessarily as, the result of conception and parturition. A noticeable feature of the previous communication was that the amount of material, as evidenced by cases reported in the United Kingdom, was very small as compared with that in the hands of continental observers.

Since the date of the last communication to this *Journal* the opinion of British observers has undergone a marked change in the direction of that previously held by continental observers, and, in addition to this, not only have a fair number of cases been reported, but the re-examination of museum specimens, described as malignant disease or malignant ulceration of the corpus uteri, has resulted in the discovery of instances of this affection which had up to the present passed unrecognised.

There can be no question that a number of cases of this affection have been classified as instances of malignant disease of the uterus without more special differentiation, and there can

[1] *Loc. cit.*, 951.

be no doubt that the increase in the number of cases observed has been largely due to the increased vigilance maintained over suspected cases and the more careful microscopical examination of fragments removed, by curette or otherwise, in cases in which the symptoms led to a suspicion that this affection might be a cause of the symptoms presented by the patient.

There are several striking features among some of the more recently reported cases of this affection. Russell Andrews[1] reports a case in which the disease arose eleven years after the last pregnancy. McCann[2] reports one nine years after the last pregnancy. Schmauch[3] reports a case in which, although syncytial metastases were found in the vagina, kidneys, lungs, spleen and brain, no primary growth was found in the uterus. Malcolm and Bell[4] report a case in which deposits of chorion-epithelioma were found in the uterus three weeks after the removal of a hydatid mole. Schlangenhaufer[5] reports two cases occurring in males, in one of which the patient died from "sarcoma of testicle with secondary deposits in lung, thyroid gland and kidney," and on minute examination the tumours were found to have the structure of chorion-epithelioma, while in another not only were cells found which corresponded to the epithelial cells of the chorionic villi, but mesoblastic tissues as well as, in fact, whole villi in a state of hydatidiform degeneration. These two cases, moreover, are by no means the only ones that have come to light. Risel[6] also derives these chorion-epitheliomatous proliferations from fœtal ectoderm, and considers them equivalent to the other ectodermal structures of teratomata. Pick,[7] while not denying the possibility that chorion-epitheliomata can arise from fœtal ectodermic material displaced in the system of the patient, which mode of origin he considers Risel to hold, is of opinion that they arise almost invariably from chorionic epithelium, the product of conception, as originally stated by Marchand. Ritchie[8] showed a case of embryona removed from the anterior mediastinum of a young man with metastases in the lungs, liver and spleen. Part of the tumour proved to be a dermoid cyst, and part to have the structure of chorion-epithelioma, as also had the metastases. F.W. Andrewes[9] at the same meeting showed two sections from specimens of endosteal sarcoma of the femur, in both of which syncytial masses were present.

From the foregoing the following points are to be noticed:—

[1] *Tr. Obst. Soc. Lond.*, 1903, xlv. 238. [2] *Ibid.*, 1902, xliv. 294.
[3] *Ztschr. f. Geburtsh. u. Gynäk.*, Bd. xlix., Hft. 3; abstract in *Brit. Gynæc. J.*, 1903, xix. summary, 138.
[4] *Tr. Obst. Soc. Lond.*, 1903, xlv. 483.
[5] *Wien. klin. Wchnschr.*, 1902, xv. 571, 604; quoted in *Tr. Obst. Soc. Lond.*, 1903, xlv. 287, 288.
[6] *München. med. Wchnschr.*, 1903, l. 1688; abstract in *Brit. Gynæc. J.*, 1903, xix. summary, 137.
[7] *Zentralbl. f. Gynäk.*, 1903, xxvii. 1110.
[8] *Tr. Obst. Soc. Lond.*, 1903, xlv. 250. [9] *Ibid.*, 237.

(1) That syncytial cell masses may occur in ordinary sarcoma.

(2) That chorion-epithelioma growth containing syncytial masses and also proliferating epithelial cells may occur (*a*) in males, (*b*) in virgins.

(3) That the connection as regards time between the last pregnancy and the occurrence of the tumour is most variable, cases having been reported when the interval was as short as three weeks and as long as eleven years. Fleischmann[1] reports a case in which a chorion-epithelioma was removed from the vagina some months after the delivery of a hydatid mole, and also a nodule from the right uterine wall. Both these tumours consisted of a typical chorion-epithelioma. The patient recovered and remained well.

The most exhaustive paper that has appeared in British literature on this subject is one by Teacher.[2] He refers to the view taken by the members of the Obstetrical Society of London in 1896—that these tumours were only sarcomata of the uterus having an accidental association with pregnancy—as being the great stumbling block to the progress of the knowledge of this affection, and he presented three new cases in order to provoke a new discussion of the subject.

He defines chorion-epithelioma as follows:—"A malignant tumour developing in the body of the uterus about the time of a confinement or abortion," of which the clinical signs are the occurrence of severe hemorrhages, progressive anæmia, and cachexia, and resulting, if left to itself, in death in a period varying from weeks to months. Hemorrhagic growths are found in the uterus, and metastatic growths, also of a hemorrhagic character, in the vaginal walls and lungs.

Histologically it consists of masses of well-defined cells of various shapes and sizes closely packed together and large multi-nuclear irregular masses of protoplasm, in which no definite cell boundaries are recognisable. This tissue invades and destroys the uterine tissue after the manner of a malignant growth. It contains no proper connective tissue stroma, or blood vessels of its own, but seems specially to attack the uterine blood vessels, and its mode of dissemination is by the blood stream.

With the view of clearing up the mode of origin, he gives the result of the latest observations on the chorionic epithelium, on the nature and origin of which and of the "syncytial wandering cells" in the decidua the nature of chorion-epithelioma depends.

He alludes to the views of Langhans, namely, that the inner layer of the chorionic epithelium (layer of Langhans) is of fœtal epiblastic origin, while the syncytium is a proliferation of the uterine epithelium, and shows that these views have been shown

[1] *Monatschr. f. Geburtsh. u. Gynäk.*, Bd. xvii., Hft. 4; abstract in *Brit. Gynæc. J.*, 1903, xix. summary, 139.

[2] *Tr. Obst. Soc. Lond.*, 1903, xlv. 256.

to be incorrect, the work of Siegenbeck van Heukelom and Hubert Peters showing that the whole of the chorionic epithelium is fœtal epiblast, the cells of the layer of Langhans being modified into syncytium when in contact with the maternal blood of the intervillous spaces. Hubrecht in 1889 showed that in the hedgehog the ovum became differentiated into two sets of cells—an outer and an inner. The outer primitive epiblast proliferated rapidly into a thick layer of cells, which became specialised as an organ for the nutrition of the ovum at the expense of the maternal blood, the actual embryonic shield being developed from a part of the outer layers and the inner set of cells together. The thick layer he named the "trophoblast," and around it considerable destruction of the maternal tissues occurred, the degenerated remains being probably used up by the trophoblast for its own nourishment. This edacious action of the trophoblast ceased, and equilibrium was established after a time. When maternal blood-vessels had been opened, the trophoblast became hollowed out into a sponge-work of cavities containing maternal blood which did not coagulate, the cavities taking the place of vessels and becoming part of the maternal circulation, that is, when a primitive placenta had been established, the maternal endothelium had disappeared and its place was taken by fœtal cells. Later the fœtal mesoblast-bearing vessels entered into combination with the trophoblast, and villi were formed, consisting of cores of fœtal mesoblast covered by trophoblast, which then became the epithelium of the villi, and the cavities in it the intervillous spaces.

The ovum in Peter's case shows that similar processes take place in the human ovum, although differences in detail are noted.

The net results of the observations in Teacher's view show that the syncytium develops out of the individual cells of the trophoblast, which are obviously epiblastic in origin, and that so far from the maternal tissues showing proliferation when in contact with syncytium, on the contrary they show degeneration. So that, on Teacher's showing, we are again reminded of the edacious powers of the trophoblast. We are shown that the syncytium is developed from the trophoblast, and that at a certain point in the development of the ovum the edacious power of the trophoblast, neutralised by the resisting power of the maternal tissues, ceases, and equilibrium is established. Hence it is apparent that the trophoblast or epiblastic structure manifests up to a certain point in the development of the ovum many of the characteristics of malignant growth, and these characteristics, if for any reason perverted or stimulated to such a degree that they can overpower the resistance of the maternal tissues, lead to the actual development of diseased conditions, of which chorion-epithelioma is one.

The diseased conditions are: (1) Simple hydatid mole, (2)

malignant hydatid mole, (3) tumours composed almost entirely of syncytium and individual cells, in which a few villi, either normal as to their mesoblastic cores or hydatidiform, are seen; (4) pure chorion-epitheliomata with no trace of fœtal mæsoblast.

Instances of each of these four conditions have been met with and described, and those of the third category, in which all the components of the villi are present, seem conclusive, since in these the whole of the tumour tissue in all its varied cell forms can be traced directly to its source.

Space will not admit of a detailed account of the remainder of Teacher's paper. He concludes as follows:—(1) The so-called deciduoma malignum is a tumour arising in connection with a pregnancy, and originates from the epithelium of the chorionic villi or its forerunner, the trophoblast, which is of ectoblastic origin. (2) That chorion-epithelioma and malignant hydatidiform mole form a characteristic group of tumours clinically and pathologically, and should be classified as neither sarcomata nor carcinomata, but as a distinct class. (3) That in addition to the common tumours developing from a pregnancy there are tumours containing precisely similar structures which are not connected with pregnancy, and may occur in other parts of the body than the uterus and in either sex. These are probably to be explained as being teratomata, originating from some structure which has the morphological value of an included matured and fertilised ovum, and the chorion-epitheliomatous tissue represents the actual trophoblast of the included ovum. The results are as follows:—In 188 cases death occurred in 121 and recovery in 65. In 99 cases out of 188 in which radical operation was performed death occurred in 36 and recovery in 63.

At the same meeting specimens were shown and cases described to the number of 19, all of which occurred in the practice of British observers, a very considerable advance in the amount of material available on that of 1896, when only three cases appear to have been recorded in this country. A prolonged discussion followed, from which we gather that for the most part the speakers agreed with Teacher. A few seemed inclined to hold to the views of Veit as to the sarcomatous type and maternal origin of the characteristic cells.

The previously-noted connection with hydatidiform mole is again emphasised in this paper. Out of the 188 cases recorded 73 occurred in connection with this, 59 in connection with abortion, 49 with full-time pregnancy, and 7 with tubal or ovarian pregnancy. Of the 89 cases not submitted to radical operation 85 died, but, a noticeable fact, 8 patients in whom signs of pulmonary metastasis had occurred all recovered.

The practical and clinical deductions are unaltered. This form of tumour is as a rule highly malignant, and should be dealt with radically as early as possible. To this end all specimens of so-called "retained products of conception" should be

submitted to careful microscopical examination, especially if irregular hemorrhages occur after termination of a pregnancy, whether normal or molar, since there is little doubt that in many cases so described and in which death occurred the cause has been in reality chorion-epithelioma malignum, and not the simple one of sepsis or hemorrhage.

WALTER C. SWAYNE.

Reviews of Books.

Studies in Heterogenesis. By H. CHARLTON BASTIAN, M.D., F.R.S. Pp. ix., 354, with three appendices and many plates containing hundreds of photographic illustrations. London: Williams and Norgate. 1903.

We had thought that this subject had been consigned to oblivion, and that the heterogenetic origin of bacteria and their allies had long ceased to be a serious problem. It is an old story, and one fought out vigorously by the author in opposition to the principal leaders in scientific work. In the life of Pasteur (reviewed in this *Journal*, vol. xx., p. 71) we find the following sentence: "'The confusion and uncertainty,' wrote Tyndall to Pasteur, 'have finally become such that, six months ago, I thought that it would be rendering a service to science, at the same time as justice to yourself, if the question were subjected to a fresh investigation.' . . . Accordingly Tyndall 'went over a large portion of the ground on which Dr. Bastian had taken up his stand, and refuted many of the fallacies which had misled the public.' Pasteur was so anxious to drive Dr. Bastian to the wall for the following reason, which we give in his own words, written to Dr. Bastian in 1877: 'Do you know why I desire so much to fight and conquer you? It is because you are one of the principal adepts of a medical doctrine which I believe to be fatal to progress in the art of healing—the doctrine of the spontaneity of all diseases.'"

It has not yet been forgotten how keenly this conflict was fought, and we were under the impression that Bastian had long since allowed that Pasteur had been the victor.

It comes to us, therefore, as a surprise that Dr. Bastian still clings to his convictions with a doggedness and pertinacity worthy of all commendation in what he believes to be a good cause. He still adheres to the *per saltum* theory of the origin of life, and he still believes in the spontaneity of living organisms. He declines to admit that life is to be defined as a power derived only from pre-existing living beings, and that all organisms—even the most lowly bacteria—breed true. His studies have

been laborious and protracted, and this volume is a record of many years of indefatigable labour. The production of the volume is really the work of a lifetime, and as such it demands careful study from those who are qualified to undertake it.

The heterogenetic origin of bacteria and their allies is the subject of section xxxiii., and here we have numerous instances of what appears to be heterogenesis, as shown by the appearance of bacteria in parts of potatoes, apples, oranges, and in the *Cyclops quadricornis*, under circumstances where infection from without does not appear to be possible. So also the author believes that his observations show that the bacteria have in reality been born in the individual cells of the uninfected kidney, and that "the *de novo* origin of bacteria from specks of living matter born directly from certain mother liquids —that is, by a process of synthesis from its elements, and just as crystals are born in other mother liquids"—must still be accepted.

He also raises the question whether heterogenesis is an unknown factor in evolution, and whether it is not a part of and in accordance with the system of nature. He shows "how convertible many of these alien derivates are—how in the pellicle on a hay infusion masses of zooglæa are formed which segment now into fungus germs, now into flagellate monads, and now into amœbæ; and similarly that the substance of a rotifer's egg may under different conditions segment into flagellate monads, amœbæ, paranemata, or even into ciliated infusoria; that on different occasions one or other of the same kinds of organisms may take origin from the substance of large encysted amœbæ; while an encysted ciliate may also itself break up into segments which develop sometimes into flagellate monads, and at others into amœbæ, paranemata, or fungus germs. . . . Finally, I have shown there is no escape from the conclusion that different kinds of bacteria may take their origin within the tissues and cells of animal organisms, and that bacteria and their allies, as well as the simpler forms of fungi, may have a similar *de novo* origin within the closed cells of many vegetables and fruits." The author goes on to remark that "however astounding these statements may seem to those who have not worked long and earnestly at such subjects for themselves, I venture to submit that the facts adduced in this volume, backed by the appearances preserved in the microphotographs, should go far to convince those who will give the subject a fair and impartial consideration."

It is very easy to any critic to make the remark that although Dr. Bastian's plethora of photographic puzzles cannot misrepresent what he saw, he may have himself misrepresented them, and it seems to the reviewer to be more likely that one observer should fail in the discovery of any fallacy in his arguments than that the whole world should have gone wrong on this important question. We must therefore adhere to the

view that the evidence is inconclusive, and that some fallacy underlies most of these observations and arguments even if any one individual may fail to find it.

The admission of the author's argument would lead to very serious results in the application of them to medical and surgical questions. He directs attention to this point in his third appendix, an essay of fifteen pages "on the great importance from the point of view of medical science of the proof that bacteria and their allies are capable of arising *de novo*." Here we cannot but believe that Pasteur, although dead, yet speaketh, and his message to us is that the *contagia viva* are not products of spontaneous generation, and that contagious diseases are propagated only and do not arise *de novo*. We are told to "Prove all things: hold fast that which is good." The author is a pioneer in this effort, and we cordially endorse his efforts "to strive to ascertain the conditions of origin of all contagious diseases. The more contagious they are, the more important does the quest become. Let us not blindly think that contagion is the one and only cause, but seek in all doubtful and obscure cases, and by accumulation of evidence, to ascertain what are the invariable and immediately antecedent sets of conditions or states of system that may have sufficed to engender this or that contagious disease." We venture to think that what the author describes as the "narrower ultra-contagionist doctrine" not only is prevailing, but will continue to prevail.

A Manual of Medicine. Edited by W. H. ALLCHIN, M.D. Vol. V. Pp. xii., 687. London: Macmillan & Co. Ltd. 1903.

This volume of this useful manual deals with the diseases of the digestive system and of the liver, the diseases of the peritoneum and of the vessels of the abdomen, of the kidneys and those of the ductless glands. In discussing the diseases of these several organs, there are sections on the anatomy and physiology, on the pathology, general etiology, general and special symptomatology, and treatment of each. The book opens with a very useful section by the editor on the anatomy of the alimentary canal and on the physiology of digestion, and this is followed by a short but excellent practical chapter on food and diet by Dr. R. Hutchison. Dr. Lazarus Barlow contributes an interesting chapter on the bacteria of the alimentary canal. The diseases of the alimentary tract and their pathology then receive careful and adequate consideration from the editor, Dr. Bertram Abrahams, and Dr. Bertram Dawson. This contains a good section on the stomach, with directions for the examination of the gastric contents. The portion devoted to diseases of the pancreas is short, but probably contains as much as can be said with certainty at the present time on this difficult subject.

Dr. Hebb and the editor have written the section on diseases of the liver. In it will be found an excellent *resumé* of our present knowledge.

Dr. Hale White contributes a very able article on the diseases of the peritoneum, and this includes valuable sections on retro-peritoneal suppuration and tumours, and on subphrenic abscess. The chapters on diseases of the abdominal vessels, often so obscure and difficult of diagnosis, will be found very useful, and has been written by Dr. Bryant. Dr. Rose Bradford is responsible for the section on diseases of the kidneys. It is very well written, contains a large amount of information, and has the merit of clearness.

This volume well maintains the characters of the manual which we have pointed out in reviews of the preceding volumes. Anyone may read it with profit. It affords the practitioner the opportunity of possessing at a moderate cost an excellent modern work on medicine, which he may rely upon as a trustworthy guide, and it is not too long. Its moderate size precludes, of course, any lengthy consideration of a single subject and more than a brief notice of rare diseases, but the sections throughout are adequate, and present a faithful picture of modern medicine, and we can cordially recommend it as an excellent book for the student and a thoroughly good hand-book for reference in the everyday work of the practitioner. There are many good illustrations.

Manual of Surgery. By ALEXIS THOMSON, M.D., and ALEXANDER MILES, M.D. Vol. I. Pp. 763. Edinburgh: Young J. Pentland. 1904.

The first volume of this manual is very excellent. The indications for treatment are very clearly laid down, and the book is very readable. It is also a pleasure to see some illustrations other than those which have a tendency to be handed down from one text-book to another. Amongst the more recent work we may notice a brief account of the value of the leucocyte count in surgery, the value of the X-ray treatment of rodent ulcer, the value of early movements and massage in the treatment of dislocations and some fractures, and a short mention of the Finsen light. A valuable note calls attention to the fallacies attending the diagnosis and position of fractures by skiagraphy. A mention is made of the very valuable suggestion of Jonathan Hutchinson, jun., to divide the glenoid ligament to aid in reducing the ordinary dislocation of the thumb. The treatment of burns is ably dealt with, the authors advising the use of picric acid in the early stages. Thiersch's grafting is well described, and a picture illustrating keloid on page 220 shows well what the result of the improper application of this method may be. These are only a few of the many points we could call attention to. If the high standard of this volume

is maintained in the other (or others) we think it will be the most useful students' book on surgery that has recently appeared.

A Manual of Operative Surgery. By Sir FREDERICK TREVES, Bart., K.C.V.O., C.B., LL.D. New [2nd] Edition. Revised by the AUTHOR and JONATHAN HUTCHINSON, Jun. Two volumes. London: Cassell & Company Limited. 1903.

Thirteen years have elapsed since the publication of the first edition of this work. During that period very great changes have been made in operative surgery, necessitating the entire revision of the second edition and the re-writing or re-modelling of numerous sections. The most notable alterations occur in the second volume, dealing as it does with the abdomen, genito-urinary system, rectum and thorax.

In carefully reading through this volume the following points indicate the advance made:—

Peritoneal drainage is dismissed in a few words. Rubber drainage-tubes and drains made of sterile gauze are advised when drainage has to be carried out. Sterilised water is alone used for instruments and sponges, the latter being made of sterilised gamgee tissue quilted. The so-called "toilet of the peritoneum" in aseptic cases is strongly condemned.

In the sections on intestinal surgery Murphy's button is described in fullest detail, but is recommended for use only where the saving of the time taken up in suturing is of the utmost importance to the patient, and in operations upon the large bowel. Cushing's right-angled continuous suture is much lauded. Halsted's plain quilt suture is omitted, and Lembert's suture is "still the best form of suture with which we are acquainted." The chapter on intestinal anastomosis has been much curtailed and simplified. Paul's tube is rightly commended for use in the performance of enterotomy. The treatment of intussusception has been much amplified—early abdominal section is urged in acute cases. Barker's operation is recommended in those acute cases where reduction is found to be impossible.

The chapter dealing with the removal of the vermiform appendix has been entirely re-written. "The peritoneum is divided with a scalpel in a circular manner at a point at which the ligature will come. The serous membrane is just sufficiently turned back to make room for the ligature. The turning back of a cuff, or flap, or hood of peritoneum is useless. Such a cuff makes the poorest possible covering for the stump of the appendix, and is probably absolutely bloodless. The practice of applying the actual cautery or pure carbolic acid to the appendix stump is to be condemned. The stump is now sequestrated by a series of Lembert's sutures made of fine silk.

The sutures involve the cæcal wall around the stump of the appendix. The stump is thus inturned and hidden from view, and is perfectly secure."

The chapter on gastro-jejunostomy has also been entirely re-written. The vexed question of the relative superiority of the anterior or posterior operation is impartially discussed, the author summing up as follows: "The question is hardly settled yet, but on the whole the posterior method is to be advised whenever practicable. The extent of the cancer will often determine the surgeon's decision." Special chapters have been inserted dealing with gastric ulcer and choledochotomy.

The chapter on the radical cure of hernia has of necessity been entirely re-written, owing to the great advance in this branch of operative work during the last twenty years and the introduction of Bassini's operation and its modifications. No other operation for radical cure of inguinal hernia is described in detail. The operation of radical cure for femoral hernia has not made any marked advance.

Whitehead's operation for hæmorrhoids is very fully described, the writer stating that he has "performed this operation in some hundreds of cases without a death, without any after bleeding, and without any deep suppuration." The chapter on excision of the rectum has been entirely re-written and brought up to date. The "comment upon the operation of excision of the rectum" at the end of the chapter is well worthy of perusal and careful consideration.

The chapter on excision of the breast has been re-written, considerable advance having been made in these operations during the few years which have elapsed since the publication of the first edition.

There are many new illustrations, and some of the old ones have been discarded.

It would be of considerable advantage if each volume contained its own index. We had hoped to find this altered in the new edition.

Hand-book of Diseases of the Ear. By RICHARD LAKE. Pp. x., 232. London: Baillière, Tindall & Cox. 1903.

Students and practitioners will find in this handy volume a short but useful and thoroughly practical account of the various diseases which affect the ear and their treatment.

The removal of post-nasal adenoids is recommended "as soon as their presence is noted to any material extent" for aural prophylaxis. We can only accept this recommendation on the hypothesis that their presence will not be "noted" unless they cause obvious aural troubles or nasal obstruction. The views expressed with regard to the treatment of aural affections by intra-nasal operations are in accord with those held by the majority of English aural surgeons as expressed in

recent discussions on the subject in the meetings of societies. Briefly stated, these views are that if aural inflation fails to relieve deafness, then intra-nasal operations will also fail. If, however, inflation ameliorates the condition, then intra-nasal operations will sometimes help to render the improvement more lasting.

The signs, symptoms, and treatment of chronic catarrhal otitis media and oto-sclerosis are well described. In the section on chronic suppurative otitis media we miss a paragraph giving succinct recommendations for ordinary treatment, though we admit that most of the ground is covered in subsequent sections which deal with the complications of chronic suppuration.

Ossiculectomy, with removal of the outer attic wall, for chronic suppuration in the middle ear, is said to be chiefly indicated in those patients who cannot give up the necessary time to undergo the radical mastoid operation, and the procedure is stated to yield extremely satisfactory results. We are of opinion that this is a great deal more than can be said for ossiculectomy without removal of the outer attic wall, and that if the results are as good as stated the indications for the operation are not adequately expressed.

We are interested in noting that the author, when operating for lateral sinus thrombosis, does not ligature the jugular vein unless he fails to get hemorrhage from the jugular end of the sinus by curetting in that direction through the opening in the sinus. We entirely agree with him in this matter. It is not necessary to tie the vein as a matter of routine in all cases.

We cannot congratulate the author on the artistic excellence of the three coloured plates which are provided to illustrate various pathological conditions of the membrana tympani, though they will prove of use to the beginner. A better sketch of the posterior nares or of the post-rhinoscopic image might have been given.

We know of no English book on aural diseases, of a comparable size, which we can more strongly recommend to the attention of students and practitioners.

Biographic Clinics. By GEORGE M. GOULD, M.D. Vol. II. Pp. xiii., 9–392. London: Rebman Ltd. 1904.

It is only a few months since we noticed the first volume of these clinics (vol. xxi., p. 358). The industry of Dr. Gould has enabled him to follow on quickly with an account of the origin of the ill-health of George Eliot, George Henry Lewes, Wagner, Parkman, Jane Welch Carlyle, Spencer, Whittier, Margaret Fuller Ossoli, and Nietzsche. We are informed that the journalists and reviewers have not yet placed the facts adequately before the profession, and "the truth is too important to the profession and to the world, especially to its

literary workers, to allow the neglect of the past generation to be continued for another. I am entirely convinced that instead of exaggeration I have under-estimated the tremendous importance and extent of the morbid factor called eyestrain. The profession must be made to realise the enormity of the mistake it has made in ignoring the truth." Much is to be said in favour of Dr. Gould's views, and this volume contributes a large amount of interesting personal history, tending to give some support to the view that eyestrain is responsible for much of the ubiquitous migraine, brain-fag, melancholy, morbidity, and despair which have been so apt to affect the world's great writers. "All is chaos, ignorance, and incurability, . . . and yet a few drops of a mydriatic in the eyes will cure it, temporarily of course, and non-use of the eyes will prevent it; a wrong pair of spectacles will cause it, and right ones will cure it." What a field opens up to the neurologists and ophthalmologists, and yet they are not grateful. The first chapter on eyestrain and the literary life is a study of the disease of fourteen literary patients who lived in the last century. "In varying admixture and degrees the symptoms of these patients were headache, insomnia, 'biliousness,' sick-headache, 'nervousness,' dejection, indescribable suffering, inability to do literary work without producing these symptoms, and relief of the symptoms whenever, even for a day or a few hours, literary work was stopped, and entire cessation of the characteristic symptoms at about 60 years of age." . . . "Much, if not the most of it, is due to neglect of the physiology of the eye and of its reflex neuroses, and carelessness as to the functional diseases which depend upon eyestrain. The deadliest blow that can be given to quackery in and out of the profession, to the patent medicine and eddyistic humbugs, is to prevent the dyspepsias, anæmias, neurasthenias, and headaches which are caused by eyestrain, and whereon fatten the multitude of quacks." We have allowed the author to speak for himself, as he is well able to do. The book is one to be studied, and it concludes with an appendix giving sixty-eight reasons why glasses have not more frequently given relief.

Clinical Lectures on Diseases of the Lungs and Heart. By James Alexander Lindsay, M.D. Pp. viii., 447. London: Baillière, Tindall & Cox. 1904.

The twenty-one chapters of this book are for the most part the substance of clinical lectures given by the author at the Royal Victoria Hospital, Belfast. They are intended to discuss the problems which confront the practitioner in the field of thoracic disease, more particularly those of diagnosis. Chapter v., on pleurisy, goes into the relation of pleurisy and tuberculosis, and the author gives a good practical summary, from which we learn "that an attack of acute pleurisy occurring

in a previously healthy individual, and completely recovered from, is not a sufficient ground for apprehending the onset of pulmonary tuberculosis, provided the habits and mode of life are favourable to health; that such cases may be accepted for life policies at ordinary rates if two years have elapsed since the attack of pleurisy, and if the general health, pulmonary expansion, and weight are satisfactory." A very interesting chapter is No. VI., on the early diagnosis of pulmonary phthisis; it points out the folly of a dilatory policy by postponing the diagnosis until either bacilli are found in the sputum or definite physical signs detected in the lungs. The views of Dr. A. Béclère on the value of radioscopy in the diagnosis of incipient phthisis are given (p. 133), but the author himself awaits the verdict of a wider experience.

The increased hopefulness of prognosis in phthisis at the present day is the keynote of Lecture VIII., which gives an outline of the factors which influence it, and afterwards a series of typical cases in illustration.

In the lecture on treatment (No. IX.) the author states that his experience of tuberculin has been small but unfavourable: his extensive trial of antiseptic treatment has convinced him of its futility, and in recent years he has gradually discarded creasote and guaiacol, as he considers that the systematic use of remedies of very doubtful utility is to be deprecated. Accordingly he now rests content with hygienic and tonic measures without the aid of antiseptic drugs, and he considers that the hygienic treatment of phthisis rests upon the sound principle that, in the absence of a trustworthy specific for phthisis, the best means of combating the malady is to raise the general health to its highest power.

The last eight chapters have to deal with points of diagnosis and treatment of cardiac conditions, and in these the author shows himself to be an experienced and reliable guide.

Milk: Its Production and Uses. By Edward F. Willoughby, M.D., D.P.H. Pp. xii., 259. London: Charles Griffin & Co. Ltd. 1903.

Many of those who are engaged in the production, distribution, or control of milk must feel sufficient interest in their occupation to desire reliable information upon points not directly involved in their own particular duties, and the author of this small work has filled a distinct want in collecting within very reasonable limits practically all the available information likely to be of use to such a circle of readers. Without entering into such minute detail as would be serviceable only to the expert, Dr. Willoughby has succeeded in compiling a most readable account of the sources and uses of milk in which the ordinary inquirer will find a sufficient reply to most of the

queries which suggest themselves to those who handle this important food in one capacity or another. The various breeds of cows and their relative merits, their housing, feeding, and the diseases to which they are subject, the composition and manipulation of milk and milk products, including fermented preparations, and, finally, the law relating to adulteration and the means of detecting sophistication are treated in a lucid, but on the whole technically correct manner.

In view of the probability of a call for further editions, it may be permitted to pay the greatest compliment open to the reviewer, and to point out one or two slips which detract from the merits of so excellent a work. On page 113 the milk of all mammalia is incorrectly stated to contain "ten to fourteen parts per thousand," instead of per cent., of solids. A somewhat awkwardly-expressed paragraph on p. 118 would lead many to infer that on drawing successive portions of milk from the bottom of a churn at rest, the first portions would contain more fat than the last, whereas the reverse is actually the fact, as is probably intended to be conveyed. It is hardly in accordance with established history to state that pathogenic germs are "mostly sporiferous," or that Pasteur was led to introduce the method of sterilising which bears his name by this consideration, or indeed that "Pasteurising" was invented or is now chiefly employed to eliminate pathogenic germs at all.

Among the tests for salicylic acid (p. 233), one which consists in the addition of bromine water with the production of a yellow, curdy precipitate and the perception of the "odour of a halogen" appears to be scarcely conclusive of the presence of this antiseptic, or indeed of much else than bromine.

Dr. Willoughby is to be commended for emphasising the view that the limits of composition adopted by the Board of Agriculture are not standards, but "the minimum permissible." When the magistrates who are called upon to decide cases of adulteration clearly understand and act upon this distinction less will be heard of the paltry fines commonly inflicted, and a further important step will have been taken towards the protection of the consumer.

The Sanatorium Treatment of Consumption. By T. N. KELYNACK, M.D. Pp. 27. London: The Scientific Press Ltd. 1904.—This reprint from *The Hospital* contains the substance of a post-graduate lecture delivered at the Mount Vernon out-patient department. The author concludes as follows: "Sanatoria as remedial establishments have accomplished much, and will continue to bring benefit to many sufferers. As prophylactic institutions they may well be widely extended, and will be of incalculable service; but the chief benefit to the community will prove to be in their educational influence on the thought and life of the people. We do well to strive

for cure, arrest, alleviation, but the ultimate goal must be prevention."

Guy's Hospital Reports. Vol. LVIII. London: J. & A. Churchill. 1904.—A notable contribution to this volume is the thesis for the M.D. Oxon of Dr. J. M. Fortescue-Brickdale, entitled "A Contribution to the History of the Intravenous Injection of Drugs"; together with "An Account of some Experiments in Animals with Antiseptics," and a bibliography. The author arrives at the following rather unsatisfactory conclusion: "With regard to the direct injection of antiseptics, the clinical evidence, open as it is to so many inevitable fallacies, gives at best only a very qualified support to the idea that such a proceeding can influence favourably the course of a bacterial disease; whilst the experimental evidence, considered as a whole, has hitherto been distinctly against it. The discovery of a drug of such selective capacity that, while injuring fatally the cells of living bacteria, it would leave the cells of the host entirely uninfluenced, seems at present a remote contingency, and until unquestionable experimental evidence of the existence of such a substance is forthcoming it would seem more rational to abandon further clinical trials, and thus to close another chapter in the history of the somewhat ill-fated *Chirurgia Infusoria*."

The Physiology of Mastication and Kindred Studies. By J. Sim Wallace, M.D., D.Sc., L.D.S. Pp. 32. London: J. & A. Churchill. 1903.—Dr. Sim Wallace's monographs are always worth studying, consequently we are glad that he gave us these three papers, originally read before the Odontological Society, within the covers of this book, conveniently arranged for consultation. The first essay explains most clearly the great importance and necessity for the thorough trituration, crushing and tearing of all food in the mouth, and well mixing the same with the saliva before swallowing it; and that when the food is of a fibrous character the more it is masticated the cleaner it will keep the teeth, and by thus being properly prepared before it is swallowed it will increase the facility of digestion. When it has entered the intestines, the fact of the food being fibrous cannot fail to assist the peristaltic action and facilitate the completion of the digestive process. The author points out that it is far better that we should eat whole-meal bread, and be content to swallow, after well masticating, the husk of the grain or bran, which inconsiderately is usually taken out of the flour in its preparation: the husk, being fibrous, assists mechanically the natural process of digestion. Moreover, starchy foods should not be swallowed too quickly, as the ptyaline of the saliva acts on it whilst in the mouth, and when it enters the stomach the action is almost *nil*. "It should also be remembered that water taken *after* meals not only tends to cleanse the mouth, but when it passes into the stomach it

stimulates peristalsis and helps digestion." The essay on the feeding of children is well worth reading, also the writer's suggestions respecting the irregularities of the teeth, containing as it does many useful observations and hints. To sum up the general view, it is evident that the conclusions of the writer tend to show that the nearer a child is brought up and fed as in primitive times, the better the teeth will be, and the more perfectly the organs of digestion and the powers of assimilation of food will be developed.

A Pocket-book of Clinical Methods. By CHAS. H. MELLAND, M.D. Pp. vi., 88. Bristol: John Wright & Co. 1903.—This little book sets out the methods of performing the ordinary clinical tests. It is not nearly full enough in detail, and many of the methods are somewhat out of date. There is no mention of Widal's reaction, swabs from the throat, examination for thrush or tinea tonsurans. No mention is made of breaking up sputa with carbolic acid, which is so useful in some cases. We cannot recommend the book, it is too meagre.

Practical Medicine. Delhi (India): The Medico-Scientific Press.—This monthly record of the progress of medical science has now entered on its second year, and has achieved a distinguished success. From it we are pleased to learn that our own "articles in the December issue are unusually strong and worth many times the price."

Asthma in Relation to the Nose. By ALEXANDER FRANCIS, M.B. Pp. 136. London: Adlard & Son. 1903.—In this small book the author discusses the present views as to the etiology of asthma. He considers that from the results he has obtained from the treatment he advocates there is "in the asthmatic state a morbid connection between the nose and the respiratory centre which can so control or affect the respiratory centre and maintain it in such a state of instability as to allow otherwise trifling sensory irritations to provoke a reflex effect in the bronchial tubes." The most important part of the book is the treatment which the author advises, which is, under cocaine anæsthesia, to "draw a line on the septum nasi with a galvano-cautery point from a spot opposite to the middle turbinated body forwards and downwards for a distance of rather less than half an inch." In about a week's time the operation is repeated on the other side, and afterwards on alternate sides at intervals of ten days or a fortnight as occasion requires. A fresh spot is always selected to cauterise. The prognosis is best in those cases where there is no definite disease in the nose, and especially in the hereditary and purely "gastric" cases. When there are polypi the cauterising should be done before the removal of the polypi. The author has seen the condition made worse by the removal of these tumours. More than half the book is devoted to short notes on 402 cases treated

by this method, and in which complete or great relief followed in the large majority. One is bound to admit that the results are most fascinating, and one only hopes that others adopting the same line of procedure may be equally happy in *their* results.

A Guide to Urine Testing. By MARK ROBINSON. Second Edition. Pp. 56. Bristol: John Wright & Co. 1904.—This very elementary book should be of use to these for whom it is intended—"nurses and others." Its existence implies that the work of urine testing is frequently left to the nurse. In hospital work when there are no clinical clerks or dressers it may be very convenient to utilise assistance of this kind, but unfortunately this practice leads to a further habit of expecting the urinalysis to be always done by others. This, we think, is a great mistake, and that it is unreasonable to expect our patients to bring with them a complete analysis made by some analytical chemist. The readiness with which these can now be obtained is no reason why the doctor should never use his own powers of observation, and such analysis must sometimes lead to unfortunate mistakes. Even with the assistance of this book there are many fallacies which would lead an unwary observer into error.

The Johns Hopkins Hospital Reports. Vol. X., Nos. 6, 7, 8, 9. Baltimore: The Johns Hopkins Press. 1902.—Four excellent papers are contained in this portion of the above Hospital Reports. Charles P. Emerson discusses "Metabolism in Albuminuria." The writer lays stress on slight rises of temperature and increase in the percentage of albumin as indicating the progress of nephritis. W. G. MacCallum contributes an article, with illustrative plates, on "The Regenerative Changes in the Liver after Acute Yellow Atrophy." Thomas McCrae and James F. Mitchell consider "The Surgical Features of Typhoid Fever" in a paper based upon the records of 275 cases of the disease treated in the Hospital in the two years between June, 1900 and 1902. Every case with surgical features is fully considered. A section on affections of the liver and gall-bladder associated with typhoid fever includes one case of abscess of the liver, successfully treated by operation, and five cases in which cholecystitis was suspected. Three of the latter recovered without operation, one ended in peritonitis following perforation of the gall-bladder, and one was successfully operated upon. One case of enteric ended fatally from acute appendicitis. Eight cases of perforation of the intestine are reported. Of the seven which were operated upon two recovered completely and a third lived a week and then died from toxæmia. With regard to the diagnosis of perforation, the authors write: "So great is the variation in the symptoms that no satisfactory general description can be given, nor is it well that it should be attempted. Those handling typhoid fever patients have to

realise that perforation comes under many guises, and that to attempt its recognition from any constant combination of signs is hopeless." Two cases of suspected perforation were explored. One showed a mild grade of peritonitis, which cleared up after operation. In the other the symptoms were caused by intestinal hemorrhage. We have said enough to show that the paper we are considering is one which will repay the most attentive consideration. Finally, Benjamin R. Schenck has a paper on "The Symptoms, Diagnosis, and Surgical Treatment of Ureteral Calculus." The article is based on four cases of operation for this condition in the Johns Hopkins Hospital and on ninety-seven cases found in literature, and gives a good *resumé* of the subject.

Vol. XI., Nos. 1—9. 1903.—This number of these valuable reports contains an exhaustive study of pneumothorax, by Dr. Charles Emerson, which is discussed from the pathological, clinical, and experimental standpoints. Complete though the study is, we have been unable to pick out anything that can be described as new, but when it is desired to ascertain what is known about any special point in connection with pneumothorax this paper will remain for many years to come the work to which reference must be made. Another valuable paper is by Dr. Henry Cook upon "Clinical Observations on Blood Pressure." It is interesting to find that the value of strychnine as a stimulant to the vasomotor system can be proved by sphygmomanometric observations. Alcohol is said, however, to possess no power as a circulatory stimulant. The last paper is by Dr. Martin Tinker on "The Value of Tuberculin in Surgical Diagnosis." In the diagnosis of such diseases as tubercle of the kidneys, tuberculosis of the joints, and in the differentiation of Hodgkin's disease from tuberculosis of lymphatic glands, tuberculin appears to be valuable.

We need only add that these reports will contribute to uphold the fame of the institution from which they emanate.

Elements of Surgical Diagnosis. By A. PEARCE GOULD, M.S. Lond. Third Edition. Pp. viii., 607. London: Cassell and Company, Limited. 1903.—Works on surgery intended for students are becoming more and more divided into two classes, viz. those on principles and those on practice, or on diagnosis and treatment respectively. The work before us deals entirely with diagnosis, and must prove of great value to all who are commencing the study of surgery. The author has done well to separate the diagnosis of injuries from that of diseases. While this is not in strict accordance with the ways of nature, it has the merit of greater simplicity. The present edition contains chapters on "The Diagnosis of the Intracranial Complications of Middle-ear Disease," "The Diagnosis of Abdominal Tumours," and of certain acute abdominal diseases coming under the treatment of the surgeon, while frequent references are made to the applica-

tion of bacteriology, skiagraphy, and blood examination to the art of surgery. The author has evidently studied condensation, for the book contains scarcely a superfluous word, but he has wisely avoided the opposite error of making it a mere notebook which would be irksome to the reader. It is written in pleasant and graceful language, and is in this respect a model of what such a book should be. No surgeon could read this book without adding materially to his knowledge of diagnosis, while the student will find it a mine of information on the art of acquiring ability to differentiate between various diseases and injuries.

Transactions of the American Surgical Association. Vol. XXI. Philadelphia: William J. Dorman. 1903.—This volume contains some excellent papers illustrative of the high degree of excellence in technique and operative ability attained by American surgeons. Some of the papers have already been published elsewhere, though this is not stated. With so much that is good, it is undesirable to comment on the relative merits of the different authors, but we have been chiefly interested in the articles on "The Surgery of the Simple Diseases of the Stomach," on "Prostatectomy and Galvanocaustic Prostatomy," and on "Intestinal Localisation." The volume covers a wide range of subjects, and should be read by those who are desirous of keeping abreast of modern surgery.

Diseases of the Gall-bladder and Bile-ducts, including Gall stones. By A. W. Mayo Robson, F.R.C.S., assisted by J. F. Dobson, M.S. Lond., F.R.C.S. Third Edition. Pp. xvi., 485. London: Baillière, Tindall & Cox. 1904.—The present volume differs widely from the first edition in the general arrangement, which is much improved, and in the treatment of the subject, from the increased experience of the author, whose knowledge of these diseases is of the highest order. It is a matter for congratulation to find that a large number of serious operations on the gall-bladder and ducts can be conducted with a comparatively small and diminishing mortality. The newest matter will be found on the operative treatment of gall stones, but the subjects as a whole are lucidly written, as they can only be by one whose knowledge is deep and whose experience is extensive. The illustrations are numerous, though perhaps not of the greatest artistic excellence. The work is to be regarded as the best English book on the operative treatment of the diseases under consideration, and it is likely to maintain its position for some years to come. At the end of the volume is placed an "appendix," which occupies a hundred and fifty pages without serving any very useful purpose. The accounts of the cases here given are too meagre to be helpful, and all that is valuable could be obtained by putting the operations and results in statistical form, which could be done in a few pages. There does not appear to us to be any sufficient reason for so largely adding to the size of the book by the inclusion of a list "of all

the operations" that the author has performed on the gall-bladder and bile-ducts.

The Imperfectly Descended Testis: Its Anatomy, Physiology and Pathology. By W. McAdam Eccles. Pp. xi., 140. London: Baillière, Tindall & Cox. 1903.—The author discusses the subject of the title from all sides in a small and compact volume, which is copiously illustrated, mostly from original photographs. The chapter on "The Development and Descent of the Human Testis" gives merely a short review of the subject, and is provided with but one illustration. The student who wishes to fully understand this part of the subject must seek elucidation in the larger works on embryology. The other chapters are of a more practical character, and in them are discussed inflammation and tumour formation in the undescended testis, and the association of imperfect descent with the conditions of torsion of the spermatic cord, hernia, hydrocele, and failure of bodily growth and sexual development. In the appropriate place the indications for orchidopexy and directions for the performance of the operation are described. In a case of inguinal inclusion the parents, it is said, should be advised that an operation may ameliorate the condition, and cannot produce any harm or place the testis in any worse position than the existing one. The author is able to testify, from an inspection of "not a few cases" in which transplantation has been performed, that the testis has a very great tendency to mount again into the region of the superficial ring. Statistics which show the results of the operation as it affects the permanent position of the testis and its subsequent development are, as the author points out, wanting. We hope that some such will be collected and find a place in a future edition of this work. Taken as a whole the volume provides the reader with a good *resumé* of the present state of surgical knowledge and practice with respect to the undescended testis. It is written in the text-book style. No cases are recorded and no bibliography is appended. But little indication is given as to the part the author has taken in the development of this branch of surgery beyond collecting the statistics and the histological and other photographs which are here reproduced. The resulting illustrations are excellent.

The Sterilisation of Urethral Instruments and their Use in some Urinary Complaints. By Herbert T. Herring, M.B. Pp. xvi., 176. London: H. K. Lewis. 1903.—The author believes that the use of dirty urethral instruments causes the greater part of the distressing symptoms associated with urinary complaints, and that it is not impracticable for a patient who has to use urethral instruments to keep himself free from contamination if only he conscientiously practices the art of sterilising the instruments, and of using them after they have been sterilised, in the way described in the book before us. The methods given are those which the author has found efficient

for the purposes mentioned. Ingenious contrivances for the sterilisation and lubrication of urethral instruments by boiling them in water and liquid paraffin are described and illustrated. Precise directions are then given as to the manner in which the patient shall use the instruments, and as to the antiseptic preparations he shall make beforehand. The endeavour has been to describe methods of sterilisation which are so simple that any person can learn them in a few lessons. Other parts of the book are devoted to a description and explanation of certain genito-urinary affections, especially those which may arise from a neglect of the principles of aseptic practice, the writer holding that it is for the best that patients should have some understanding of these matters. We have no hesitation in saying that if the methods advocated by the author were extensively adopted a vast amount of urinary infection would be avoided, and that we have heard of no better methods. But comparatively simple and practical as they are, we believe they will prove to be too troublesome and complicated for a considerable proportion of genito-urinary patients, certainly so for the out-patients of our hospitals. Amongst intelligent patients, however, the methods will have a wide field for useful employment. The account of them should be read by every practitioner who has heretofore been inclined to take the pessimistic view that self-catheterisation must end in infection, for he will acquire a hope of better things and will be encouraged to make more painstaking efforts to gain aseptic results, from which advantage will accrue to his patients and to himself. The lubrication of the rubber plugs employed, and of the outside of the glass tubes figured on page 34, is objectionable. Apparently in washing out the bladder a separate rubber bag is recommended for each four ounces of fluid used, a decidedly objectionable multiplication of instruments. We regret that a soluble lubricant is not provided for in the sterilisation scheme.

Football Injuries. By R. H. ANGLIN WHITELOCKE, M.D. Pp. 16. London: J. & A. Churchill. 1904.—A paper read before the Medical Officers of Schools Association on "Football Injuries," by Dr. R. H. Anglin Whitelocke, of Oxford, is well worth perusal, as the author has had exceptional advantages of studying and treating the individual cases from the very beginning, and has put the deductions drawn from his experience in a concise paper full of interesting detail. We readily endorse his opinion that Rugby football accidents are more common but less severe than those arising from the Association game, and are glad that he emphasises what we have in these pages pointed out, namely, the advisability of gradual training before the real work of a football season begins. One very interesting topic is the present method of dealing with sprains, and the author's condemnation of any splint or rigid apparatus. The details of his treatment are plainly put, and the rationale of each step given, and the results of such treatment are remarkable, twenty-

one days being the longest time that the player need expect to be kept from the football field. In another part of the paper Dr. Whitelocke gives a useful classification of the conditions that come under the head of internal derangement of the knee-joint. When a semilunar cartilage has to be removed he prefers a longitudinal to a transverse incision. There are many points in the paper which might give rise to some discussion, but to those of our readers who are connected with schools we may recommend the paper as one which is likely to be of considerable practical value.

Drugs: Their Production, Preparation, and Properties. By H. WIPPELL GADD. Pp. xi., 180. London: Baillière, Tindall & Cox. 1904.—The first sentence of the preface expresses its nature very fairly: "A concise account of the principal vegetable, animal and chemical substances used in medicine." The book is divided into three sections, dealing successively with drugs of vegetable, animal and chemical origin, preceded by an introduction giving useful information as to methods of obtaining the soluble constituents, such as infusion, decoction, etc. The B.P. drugs are dealt with *seriatim*, the preparations of each being mentioned with their strengths. An example of the general up-to-dateness of the book is the mention under Kino of the fact of sterilisation of the tincture being necessary to destroy the enzyme which causes gelatinisation. A quotation from Robert Browning on the nature of Tragacanth is a novel application of poesy to pharmacy. Useful tables of weights and measures and alcohol strengths complete a work which should be of great use to the student of materia medica.

The Therapeutics of Mineral Springs and Climates. By I. BURNEY YEO, M.D. Pp. viii., 760. London: Cassell & Company. 1904.—No one can be better qualified to write on any branch of therapeutics. This work is to some extent founded on the previous volume, entitled *Climates and Health Resorts*, a subject which has for many years engaged the attention of the author. The preface is written in a very humble spirit. It is pointed out that radio-activity may be the foundation of much of the magic virtue possessed by all mineral waters, but that "the time is not yet ripe for any positive, practical pronouncement on this subject." It would be an evil day for all mineral waters and watering-places if their prosperity were to depend on available chemical analysis and scientific evidence on the value of the waters. The utility of these places to the human family is such that we trust a scientific analysis of their value may be long deferred. It is quite pardonable to any hydrologist to magnify his office, and he naturally has a bias in favour of his own springs to the depreciation of all others. It has been a source of astonishment to the writer to observe how much may be done, and how great a variety of treatment may be devised, by variations in the mode of use of even one or two

varieties of mineral water from different springs in the same town or village. Nearly five hundred pages are devoted to the study of mineral springs, and the information given appears to be very complete and reliable; then follows a chapter of nearly eighty pages on the application of mineral waters and baths to the alleviation and cure of disease, and here the sound common sense of the author is very obvious, for he does not accept any statement without criticism and the application of his general knowledge of the disease in question. Part II. is devoted to climate and climatic resorts, and here we are sorry to observe that Clifton is no longer included as one of the health resorts of this country. A short chapter on "Treatment in Sanatoria," and a list of those well established, adds to the utility of the volume.

Dispensing Made Easy. By WM. G. SUTHERLAND, M.B. Pp. vii., 102. Bristol: John Wright & Co. 1904.—The title of this book brings to mind the title of another work, *Killing no Murder*. We hope that the motive of the general practitioner mentioned in the preface, namely, to make dispensing "as easy as possible" is by no means the chief point considered in his surgery. It is interesting to note in the introduction that according to the author the methods of the dispensing chemist cannot be adopted by the medical practitioner in his limited time, and also that the reason is that systematic methods, solutions of salts, etc., are used by the latter, and therefore, arguing by inference, are not by the former. We had fondly imagined till we read this work that if system were carried out anywhere it would be in the pharmacy to which we entrusted the compounding of our patients' prescriptions. To proceed from the general to the particular, we are glad to notice that a poison cupboard for potent preparations *and* such preparations as are affected by light, santonine being particularly mentioned, —one cannot help recalling a particularly regrettable incident that occurred a short time ago through santonine being mistaken for strychnine and the latter dispensed in error, the two bottles being placed side by side—should certainly be used. Further, however, we are told not to keep our liq. strychnine, liq. arsenic, or liq. morph. in the poison cupboard, as "there is no advantage in keeping *all* poisons (the emphasis is the author's) in the poison cupboard, etc." Further comment is needless. Under a prominent head-line of "How to Cut Down the Drug Bill without Loss of Therapeutic Efficiency," we meet with the surprising statements that "aqueous" tinctures should be used, that they are pharmaceutically better than B.P. tinctures. We wonder how many drugs lend themselves to this process. Perhaps the feature of the book most to be deprecated is the way in which in his formulæ the author departs altogether from the British Pharmacopœia, a work that with infinite labour is put together by a representative council of medical men, aided by the first pharmacists of the country, as a

standard for the preparation and combination of drugs, and in its place are suggested purely unofficial preparations made by an American drug house. No feature of present-day prescribing is more lamentable than the tendency to prescribe, not from the B.P., but from the price list and specious advertisements of various drug houses—chiefly American and German. This author throughout booms one particular American firm, whose pamphlets and so-called "specialities" flood our tables and waste-paper baskets. Ince's dispensing aphorisms are a welcome relief, but surely never did the veteran pharmacist's wise mottoes for the dispensing counter appear in such strange surroundings. Throughout the principle appears to be, not to carefully prepare your solutions, but to take So-and-So's tablets and dissolve so many in so much water. Liquid extracts of gentian, bitter orange, squills, rhubarb, hyoscyamus, are examples of refinements (?) of pharmacy of which the B.P. is innocent, but which are necessary for "easy dispensing," and for which presumably we must go to our drug house "across the water." The one thought that arises when we read this book is, that if the author is right, the sooner we adopt the German principle of leaving all dispensing in the hands of the chemist, the better. In view of a recent occurrence in an institution in the South of England, accuracy and not easiness needs to be the motto of the dispenser, whether medical or pharmaceutical.

Manual of Midwifery. By W. E. FOTHERGILL, M.D. Third Edition. Pp. xviii., 506. Edinburgh: W. F. Clay. 1903.—This book had already become deservedly popular before it reached the present edition. Although the subject is classified carefully it is pleasant reading and the descriptions are clear. The subject of development has been brought into line with the recent work which has been done in this branch by Hart, Yalland, Webster, Foulis and others. For instance, the anatomical space so long described as an outfolding of the somatopleure, is now shown to be a cleavage at an earlier date in the epiblast, and to have, therefore, in its formation no mesoblast. The early ova of Spee, Leopold and Peters are figured and described; they illustrate very plainly some of the earlier changes of the embryo. The chapter on "Forceps" is excellent, much of the careful work on the subject by Milne Murray being extensively acknowledged. The diseases of the puerperium have not sufficient space devoted to them, the details of management being very scanty. This subject is of great importance in midwifery, and is too often dismissed with but few words. The illustrations throughout are good, and some of the diagrams especially useful. We can recommend the book as concise and yet pleasant reading both to students and practitioners.

The Transactions of the Edinburgh Obstetrical Society. Vol. XXVIII. Session 1902—1903. Edinburgh: Oliver and Boyd. 1903.—This is an interesting volume, full of good

papers. The value of Bossi's dilator is testified to by Dr. Frost and Professor A. R. Simpson in two cases of eclampsia. It seems to have acted well, dilating, without damaging the uterus, in about half an hour, even when the woman was not in labour, and not to have damaged the cervix. They claim that it acts not merely mechanically, but also by stimulating the uterine contractions. The most interesting paper is by Dr. Berry Hart on "Hydatidiform Mole and its Relation to Deciduoma Malignum." After discussing the histology of the normal villus with special reference to Langhan's layer and the syncytium, both of which he considers fœtal, he points out that it is in this region the change in hydatidiform mole takes place, and also from these cells that deciduoma malignum arises, thus accounting for the fact that the latter has so often been recorded as following the former. He then advances the theory that the overgrowth of the villus in these moles is the continuation of the natural process of growth in the villi, which is usually checked by fœtal thyroid secretion. When the embryo dies early this action is not present and hence the disease. He is not clear why this should take place so rarely, as early death of the fœtus is comparatively common. Dr. Laskir gives a number of cases of pyrexia following labour which he considers to be non-septic. With most of these we cannot agree. He asks for a reason why a woman should have a rigor after washing out the uterus, which four of the cases had. Surely that may be taken as almost if not quite conclusive evidence of intra-uterine sepsis. Two papers on "The Treatment of Threatened Eclampsia by Thyroid Extract" do not show that it has much value. Most of the other papers refer to the technique or results of abdominal operations.

Transactions of the Ophthalmological Society of the United Kingdom. Vols. XXII. and XXIII. London: J. & A. Churchill. —Having had the pleasure of perusing these volumes we have nothing but praise to offer with regard to them. They are well got up, and the illustrations, both in black and white and in colours, leave nothing to be desired. These illustrations, which are always a feature of the *Transactions*, are very numerous, and no expense has been spared in their production; indeed, when one thinks of their cost one almost feels inclined to call it a "prodigality of illustrations." The text, too, contains a perfect feast of interesting matter. In Vol. XXII. may be found the entire Bowman Lecture for the year on "Keratitis," delivered by Professor Fuchs, of Vienna, before the Society; while Vol. XXIII. has for its *pièce de résistance* a most exhaustive paper by Dr. Louis Werner, of Dublin, on "Intra-ocular Echinococcus with Brood Capsules." Altogether the two volumes form an extremely interesting collection of rare and abnormal cases, and the committee are to be congratulated on their selection and the wealth of material they had to select from.

The British Journal of Children's Diseases. Vol. I., No. 1. January, 1904. London: Adlard & Son.—This new journal contains some interesting and valuable articles. It has been customary to consider that there is little difference between disease in children and in adults. Too much may perhaps be made of diseases of children as a speciality, but the more one studies ailments in children the more one finds how much there is that is not to be found in general text-books upon medicine. At the same time, we think that most works upon children's diseases are very unsatisfactory. When facts of importance are mentioned they are too often hidden amongst a mass of information that can be gleaned elsewhere. If the *British Journal of Children's Diseases* maintains the standard of the first number we think it will be a useful addition to medical literature.

Transactions of the American Dermatological Association. May, 1903. New York: The Grafton Press.—Papers of great interest in a readable form are presented in this volume from the pens of well-known dermatologists. It is of considerable practical interest to see how large a part phototherapy and radiotherapy play in these reports. Three papers are worthy of notice. Stelwagon's steady, self-respecting and critical essay, involving, as it does, the record of his own experience, can only prove of service to those who are anxious to assign the proper position to the X-rays in the treatment of cutaneous disorders. His allusion to medical hysterics, and his rather caustic remarks on the unbalanced optimist does not prevent him from reciting a fairly long list of diseases in which he has found the treatment of great use. Pusey, whose name also is well known in the world of photo-therapeutics, contributes a paper on the same subject, and does a good deal to deliver the question from the region of absolute empiricism. Montgomery, in his article on "The Present Status of Phototherapy," practically reviews the condition as at present date it obtains at Copenhagen. In company with many who have used the smaller forms of lamps, he is not altogether persuaded of their inefficiency. His collated remarks at the end on the penetration of light from different sources through layers of skin, etc., are of scientific interest. Among the other papers may be mentioned one from Van Harlingen, who attempts to make out a case for gangrenous cutaneous affections being of hysterical origin, though being without injury, accidental or self-inflicted. Also Morrow's criticism on "Syphilis and the Medical Secret." In this paper he reviews the question of the responsibility of the profession with regard to the patient, and the latter's relation to others and to the State. His suggestion that legislation might compel the revelation to the sanitary authority in the case of anyone engaged in the occupation of nurse, domestic baker, waiter, barber, vendor of toys and food stuffs, or concerned in the preparation of food or drink, demands careful thought, tending, as it does, to protect the innocent from so terrible an infection.

Modern Nursing in Private Practice. By Sir WILLIAM BENNETT, K.C.V.O., F.R.O.S. Pp. 23. London: The Scientific Press Ltd. 1904.—This address was delivered to nurses at St. George's Hospital; it contains most excellent advice and some pertinent home truths which deserve to be widely read. Sir William Bennett has had considerable experiences of private nurses, good and bad, and he is able to offer some excellent suggestions to nurses as to what they should avoid. We heartily endorse his opinions and recommend them to all concerned.

The Pocket Therapist: A Dictionary of Disease and its Treatment. By THOMAS STRETCH DOWSE, M.D. Pp. 411. Bristol: John Wright & Co. 1903.—This little volume may be looked upon as a pocket dictionary of therapeutics. The arrangement of the subject-matter is alphabetical. For ready reference and as an aid to memory we can cordially recommend the book. The directions for the treatment of disease are condensed, but the condensed matter is remarkably good and thoroughly modern, and in our opinion cannot fail to frequently help the reader.

Serum Therapy. By R. T. HEWLETT, M.D. Pp. viii., 262. London: J. and A. Churchill. 1903.—The treatment of disease by antitoxins and sera has now become so general that a short work dealing with their preparation, standardisation and method of administration will be readily appreciated by all students of medicine. An instance has recently come to our notice where diphtheria antitoxin has been given by the mouth, and yet another where antistreptococcus serum has been administered in an infection due to an entirely different organism. A perusal of Prof. Hewlett's book would do much to correct such errors, and will afford guidance in the selection of suitable cases in determining the dosage, the frequency of administration, and estimating the probabilities of success. The true value of serum-therapy cannot be gauged until the principles governing its administration are understood by the profession, and for this reason we heartily welcome Professor Hewlett's work.

A Manual of Pathology. By JOSEPH COATS, M.D. Fifth Edition, revised throughout by L. R. SUTHERLAND, M.B. Pp. xxvi., 1287. London: Longmans, Green & Co. 1903.—The fifth edition of this well-known text-book opens with a prefatory notice of the late Professor Coats by Sir W. T. Gairdner. The present edition has been revised throughout and edited by Professor L. R. Sutherland, and "may be said to have had the counsel and support of the late author up to the very close of his life." Although lapse of time and consequent advance in knowledge, and sometimes change of view, have made alterations necessary, the general plan and scope of the work have been carefully and successfully preserved. Thus the book will

be found to present the same general features which have secured its success in the past, but improved and brought up to the knowledge of the time. The section on bacteriology has been omitted; this was never a strong point of the work, and the editor is no doubt right in saying that it can now only be dealt with in special treatises. As a trustworthy guide to morbid anatomy the book has few equals, and no superior in the number, variety, and excellence of its illustrations. In the present issue these have been increased from 490 to 729, they form an admirable series, have been beautifully reproduced, and by themselves alone make the book a valuable possession. This fifth edition seems to promise a prolonged life of prosperity to the volume, which in itself is a noble monument to the arduous labours of a lifetime.

Cancer and Pre-cancerous Changes: their Origin and Treatment. By G. H. FINK. Pp. 105. London: H. K. Lewis. 1903.—This book contains an account of various views as to the origin, prevention and treatment of cancer. The author seems himself to have adopted the parasitic theory, and most of his observations are based on that. It is not written to maintain any original view, nor does it contain, so far as we have observed, any new evidence. The author says his object in writing the book "is to deal as consistently as possible with the probabilities in the life history and development of cancer, so far as their knowledge at the present time admits." What this exactly means it is difficult to see. Major Fink tells us how he first forwarded a paper on cancer to the India Office, and how this was referred to the Cancer Research Committee. We have unfortunately to wait until the next edition of the book to know whether this Committee finally decide to aid Major Fink in investigating the subject. Why are we told all this? What possible bearing can it have on the contents of the book, except to show that his own investigation has very little, if anything, to do with it at present? A great deal of the book seems to us to read like a work of the imagination. No doubt if Major Fink carries out any real investigation he may have something original, and based on evidence, to put before the profession later on. We also hope by that time he will have learned that fewer words and a clearer expression of his meaning will greatly assist the reader. We may give an illustration of the way in wichh the author allows his imagination play. He first tells us that one of the most settled points with regard to cancer is "that there is a loss of nervous control, attended with strong emotional feeling, previous to the local manifestation of cancer." And he goes on to say that ten per cent. of young people in a train in London may be observed to have chorea. He then argues that chorea in youth causes cancer in late adult life, and refers us to the long incubation period in hydrophobia as an analogous condition, and explains the onset of cancer so late by suggesting that there has been

for many years an "absence of the explosive cause which sets free the reins of control." Here, indeed, is a lucid expression of a view, founded on overwhelming evidence! We cannot help thinking that the author has been dreaming about cancer, and has confused the impressions of his sleeping hours with actual facts.

Studies from the Department of Pathology of the College of Physicians and Surgeons, Columbia University, N.Y. Vol. VIII. For the Collegiate Year, 1901–2. [Reprints.].—The director of this department, Prof. T. Mitchell-Prudden, has grouped together in this volume the reprints of the more important studies published by workers in the department in various medical journals during the years 1901–2. This is certainly a convenient method of collecting together papers too valuable to be buried in the bound volumes of current periodicals, and by facilitating reference should help other workers who are investigating the subjects dealt with here. Sixteen papers are presented, and without enumerating their titles we may say that they will all repay perusal, and refer our readers to the volume itself. Seven of the papers deal with bacteriological subjects.

A Practical Handbook of Midwifery. By FRANCIS W. NICOL HAULTAIN, M.D. Second Edition. Pp. viii., 253. London: The Scientific Press, Limited. [1902.].—This book gives within a small compass the chief points of practical importance in the study of obstetrics, and the present edition has been considerably enlarged and revised. In chapter iii. no mention is made of the probable toxic origin of uncontrollable vomiting, a theory which during recent years has found considerable favour. In the treatment of eclampsia the hypodermic injection of pilocarpine is recommended, but the danger of giving this drug when the patient is unconscious is overlooked. The low mortality of Cæsarian section at the present time is causing that operation to take the place of craniotomy, and the author thinks that in cases where the child is living the latter operation will soon be regarded as obsolete. The last chapter is devoted to the management of the infant, including the artificial feeding. The book is one we can recommend both to students and practitioners.

A Handbook of the Diseases of the Eye and their Treatment. By HENRY R. SWANZY, M.B. Eighth Edition. Pp. xix., 678. London: H. K. Lewis. 1903.—We have received the eighth edition of this work, which so closely follows the seventh as to be almost like a journal of ophthalmology. It must be very gratifying to the author to find so great a demand for his work. At this we are not surprised, as for what might be called a small book on ophthalmic surgery, this compilation is still without a peer. To the ordinary student of medicine, who nowadays has so many subjects to claim his attention, we recommend the work strongly. The busy practitioner who comes across a

puzzling eye case now and then will find in its pages the very latest information, and that given in such a concise and clear form as to render his search after knowledge in this direction a comparatively easy task. All the recent advances in ophthalmic work are set out at large, several of the chapters having been re-written, and the whole forms a work which does the author the greatest credit.

Ophthalmic Nursing. By SYDNEY STEPHENSON, M.B. Second Edition. Pp. xiii., 191. London: The Scientific Press, Limited. [1902.]—The second edition of Sydney Stephenson's *Ophthalmic Nursing* has now appeared, and we can congratulate him on the rapid sale the first edition has had. This shows how much his book is appreciated by the nursing fraternity. He points out in his preface that the second edition brings the text up to date with regard to new drugs and modern methods of sterilisation without increasing its bulk to any appreciable extent.

Golden Rules of Refraction. By ERNEST E. MADDOX, M.D. Pp. 86. Bristol: John Wright & Co. [N.D.]—This little volume is much more than a mere collection of aphorisms culled from a text-book on refraction. It is wonderfully concise, comprehensive, clear, and well arranged. Not only does it contain all the more important facts relating to refraction *in a readable form*, but there is also a good deal of information of a practical nature about the uses and advantages of the various kinds of apparatus required, and of the sorts of lenses and spectacle frames best suited for various conditions.

Sight and Hearing in Childhood. By ROBERT BRUDENELL CARTER and ARTHUR H. CHEATLE. Pp. viii., 120. London: The Scientific Press Ltd.—This little book is written to explain to parents and teachers the importance of the care of the sight and hearing of children under their care. In as clear and popular way as possible the mechanism of sight and hearing is explained, as also the common causes of defective vision and deafness, with some of their more obvious symptoms. The likely results of these defects are pointed out and the indications for treatment explained. This excellent little book should be in the hands of all teachers.

Lessons in Disinfection and Sterilisation. By F. W. ANDREWES, M.D. Pp. 222. London: J. & A. Churchill. 1903.—This little book, containing as it does some elementary teaching on the subject of bacteriology, will be found a useful guide to students and nurses in matters relating to disinfection. The information is not couched in language of too technical a nature, and can be readily understood by persons who have not received a medical education.

Lessons on Massage. By MARGARET D. PALMER. Second Edition. Pp. xvi., 261. London: Baillière, Tindall & Cox. 1903.—To this second edition has been added a chapter on the

Schott treatment of chronic diseases of the heart, describing the various exercises used for this purpose at Bad Nauheim. Besides this, a chapter on bandaging will add to the value of the book.

"First Aid" to the Injured and Sick. By F. J. WARWICK, M.B., and A. C. TUNSTALL, M.D. Third and Revised Edition. Pp. xiii., 236. Bristol: John Wright & Co. 1903.—There is but little to comment on in this small volume. It contains in the first part a short survey of the anatomy and physiology of the body, and in the second chapters bandaging, hemorrhage, wounds, fits, &c. The diagrams are good, and several new ones have been added. There is a very useful little chapter on preparations for the reception of a case of accident and sudden illness. The work is intended as an advanced ambulance handbook, and it performs this function very well.

Annual Report of the Smithsonian Institution for the year ending June 30th, 1902. Washington: Government Printing Office. 1903.—This is not a medical volume; nevertheless, it contains much of scientific, and therefore of medical interest. Such topics as those of Becquerel on the Radio-activity of Matter, and Bateson on the Problems of Heredity and their Solution, are popular subjects of the time, whilst Professor Dastre's essay on the Life of Matter forms a striking contrast to the mutability of mundane things as shown by Russell's account of the volcanic eruptions of Martinique and St. Vincent.

The Edinburgh Medical Journal. New Series. Vol. XIV. Edinburgh and London: Young J. Pentland. 1903.—The original articles on a variety of medical topics are of more than the usual importance, but Dr. Sutherland's Glimpses of the Madrid Congress and Southern Spain forms a story which will be read with profound interest by those who visited the Iberian Peninsula last year, and by those who propose to attend the International Medical Congress at Lisbon in 1906. The introductory address to the Class of Anatomy in the University of Edinburgh, by Professor D. J. Cunningham, and the valedictory address to the Medico-Chirurgical Society of Edinburgh, by Professor Sir Thomas R. Fraser, are of more than ephemeral interest.

The Prevention of Consumption. By ALFRED HILLIER, M.D. Pp. xv., 226. London: Longmans, Green & Co. 1903.—The author, as the secretary to the National Association for the Prevention of Consumption (London), is entitled to write with all authority, and a preface by Professor R. Koch states that "the book in all respects represents the latest scientific views, which are so clearly expounded that every intelligent reader can derive reliable instruction from them. . . . The more readers the book finds the more good it will do." The preface contains the following statement: "Tuberculosis may be cured,

can be avoided, and ought to be prevented." The book proceeds to show how these two latter feats are to be accomplished: the clinical and therapeutic aspects of the subject are not included. The chapters on Infection and Personal Precautions should do much in aid of the objects of the National Association.

A Handbook of the Open-air Treatment, and Life in an Open-air Sanatorium. By Dr. CHARLES REINHARDT and Dr. DAVID THOMSON. Second Edition. Pp. xv., 176. London: John Bale, Sons and Danielsson, Limited. 1902.—This concise account of the modern treatment of consumption and other tuberculous diseases, with descriptions of the open-air sanatoria in the British Isles, should be very useful in educating the profession and the public in the work which the National Association is endeavouring to do. The authors are both connected with the Stourfield Park Sanatorium at Bournemouth, and one of them also with the Hailey Sanatorium at Wallingford. The book is profusely illustrated, and interleaved with pages of advertisements, which were better omitted from any future editions which are likely to be required, when some notice of the London Sanatorium at Pinewood, Wokingham, might well be included.

Muco-membranous Entero-colitis. By MAURICE DE LANGENHAGEN, M.D. Pp. vi., 115. London: J. and A. Churchill. 1903.—The author, a consulting physician at Plombières, Vosges, classes this malady as one of the manifestations of the arthritic diathesis, and he describes it as due to a superficial catarrh of the mucous membrane of the large intestine, caused in the first instance and afterwards kept up by coprostasis. He considers it to be intimately associated with Glenard's malady, enteroptosis having co-existed in all advanced degrees of the disease. Another usual complication is intestinal lithiasis, and possibly also appendicitis. All muco-membranous enteritic patients are neurotics, and not unfrequently uterine troubles completely mask the intestinal affection. The usual length of the illness seems to be about three years, but this may be considerably abridged by treatment, or on the other hand it may be extended to twenty or thirty years. The hydro-mineral treatment at Plombières, combined with regimen and evacuating medicines, has given excellent results.

A Practical Text-book of the Diseases of Women. By ARTHUR H. N. LEWERS, M.D. Sixth Edition. Pp. xviii., 533. London: H. K. Lewis. 1903.—The present edition of this excellent manual has been thoroughly revised and brought up to date. The first chapter, describing the proper method of investigating a case, is of great practical value to the student. With regard to uterine fibroids, the author says that of operative procedures hysterectomy holds the first place. He recommends supra-vaginal amputation of the body with intra-peritoneal treatment

of the stump whenever possible, and panhysterectomy for those cases in which the tumour involves the cervix. Oöphorectomy he considers obsolete. Malignant disease of the cervix may, he thinks, in some cases be treated by supra-vaginal amputation of the cervix, and he says "that in most cases this operation, properly performed, gives the patient just as good a chance of non-recurrence as vaginal hysterectomy." A full description is given of the supra-vaginal operation, and a number of cases are recorded. We think, however, that many of these would by most operators be treated by the more radical method of vaginal hysterectomy. The book, which is well illustrated and printed in good type, affords an excellent introduction to the study of gynæcology.

Transactions of the American Pediatric Society. Vol. XIV. New York: Reprinted from *The Archives of Pediatrics.* 1902.—There is nothing of unusually noteworthy interest in this volume. As is usual in American journals of children's diseases, the management of milk-feeding is the subject of several papers. There is one on fat percentages by Dr. Westcott, another on the proteids of milk by Dr. Dwight Chapin, and a third also by Dr. Chapin on the place of cereals in infant feeding. The remarks of Dr. Griffith in the discussion which followed the last paper seem to us to be of interest:—"In cow's milk we are dealing with a substance which you can never make just like human milk. It is beyond the possible. Therefore there can be no absolutely right way in which we must treat it before it is given to a child since, after all, it is an unnatural food, and any mixtures made with it are at best but approximations to, and imitations of, the natural article." He further adds:—"In the first place, then, we are dealing with an unnatural milk, and no absolute rule can apply to it. A second reason why there is no rule of feeding which can be called absolutely right is that we are dealing with babies as individuals." Various cases of interest are recorded, and this volume contains a valuable index of all the volumes (fourteen in number) published by the Society.

Polyphase Currents in Electro-therapy. By GEORGE HERSCHELL, M.D. Pp. 44. London: Henry J. Glaisher. 1903.—This is an account of the application to therapeutic purposes of a variety of the common alternating current. In the latter the force gradually increases to a maximum, as regularly declines, and then passes through the same curve, but in a negative sense. In the triphase system there are at any moment three such currents, each of which is at a point of the curve equally distant from the other two. Though their algebraic sum is zero, they produce a rotating magnetic field or electrical whirlpool in the tissues acted upon by them, and it is claimed that this form of electricity has a practical therapeutic value. Dr. Herschell, finding that it was impossible to regulate

sufficiently the currents obtained from ordinary rotary converters, has brought out an apparatus which gives when needed a high E.M.F. with slow phase of alternation. Thus he can develop a current of rapid alternations which acts on the metabolism of the body, or a slow one which causes muscular contractions, especially in unstriped muscles. The generator can be driven from a 100 volt continuous street current or from a 12 volt accumulator, and the current applied by baths or electrodes which are three in number. He claims that these currents cause: (1) an increase in the tension of the pulse and in its amplitude; (2) a great rise in the excretion of urea; and (3) an immediate action on the movement of the gastro-intestinal tract. The length of stay in the stomach of a test meal is reduced, and an action of the bowels is often produced by the application of the current then and there. Certainly a battery which without drugs or enemata causes immediate defæcation, and in obstinate constipation leads to a final cure needs no recommendation. Its value in nervous dyspepsia and neurasthenia with a low tension pulse may be forgotten, but immortal fame awaits this invention if it only lives up to its early promise in the removal of constipation.

A Pocket Dictionary of Hygiene. By C. T. KINGZETT and D. HOMFRAY. Second Edition. Pp. 112. London: Baillière, Tindall and Cox. 1904.—This small volume gives an explanation of the terms used in sanitary science, and supplies in a condensed form much information relating thereto. It should prove serviceable to medical officers of health and sanitary inspectors.

The Examination of the Urine. By J. K. WATSON, M.D. Pp. 30. London: The Scientific Press, Limited.—A small book intended solely for the use of nurses dealing with the physiology and pathology of the urine and its examination so far as the subject appertains to the province of the nurse. The first two parts, on the *Urinary apparatus and the characters of urine in health and disease*, are well arranged and easily followed; the chapter on the *Methods of examination* is by no means so good, and will probably be found difficult to understand by anyone not well versed in chemistry; too much explanation is attempted and too little is explained. The various tests are not particularly clearly laid down, and fallacies are repeatedly hinted at without suggestions being given to exclude them. An attempt is made at the end of the book to tabulate the condition of urine corresponding with some of the commoner diseases; where this table is intelligible it becomes misleading. On the whole, nurses might read less and know more than this volume offers.

Editorial Notes.

Bristol Royal Infirmary.

President and Treasurer.

The resignation of Sir Charles Daniel Cave, Bart., of an office which he has held for the long period of twenty-four years calls for some recognition of his services, which have been many and great. Appointed in 1880, his tenure of office has been two years longer than that of his father, Mr. Daniel Cave, who resigned in 1844, and nearly sixteen years longer than the average (8.8 years) of the sixteen Presidents, who commenced with John Elbridge in 1735. His activity as President is shown by the long list of life governors and donors of upwards of thirty guineas in the year 1881, when a special effort was made to pay off a debt which had been accumulating for some years. Since that time no special appeal has been made, but numerous extensions and improvements have necessitated a very large and increasing expenditure, which exceeds the ordinary income by the sum of four thousand pounds. At a Meeting of the Board held on Friday, May 5th, the very Rev. the Dean of Bristol moved: "That this Board of Governors accept the resignation of Sir Charles D. Cave with profound regret, and unanimously desire to place on record their appreciation of the signal services which he has rendered as President and Treasurer for nearly twenty-five years, and of the unfailing courtesy and patience which have endeared him to all his colleagues. They trust that he may be spared for many years to watch with interest the institution over whose destinies he has so long presided." The Board then proceeded to elect a new president, and Dean Pigou said "they all felt that the president of a great institution like that, with its traditions and importance in the place, should be pre-eminently a citizen of Bristol who knew its wants, and was in touch with the people; should be a man of great tact and knowledge, of business habits, and with considerable influence among his

fellow-men. The name he had to submit for their consideration was a household word in Bristol. Mr. George White had shown devotion to this city, and had identified himself already with many philanthropic matters. He had not shrank from the position of president for reasons which would make some men hesitate and think twice, but felt rather that he had a special call to undertake the office. He congratulated, not only the Infirmary, but Bristol generally, upon the prospect of having as president a man who would fill the conditions he had ventured to mention as fitting to the office. Mr. George White would certainly have the confidence of the city, and would bring fresh blood and fresh experience into their midst." The following letter from Mr. George White was then read by the Secretary, and is such that it should be placed on record as a notable example of public spirit and self-sacrifice: "I have given much thought to the suggestion so kindly conveyed to me that I should accept the presidency of the Bristol Royal Infirmary, in the place of Sir Charles Cave, who, I understand, is desirious of retiring. In view of the present position of the finances of the institution, I appreciate the fact that the office would entail considerable anxiety and responsibility, but I am also free to confess that it is just these difficulties of the committee which seem to me to constitute an irresistible claim upon the services of any Bristolian, and my duty, therefore, is obvious, especially so at this critical juncture in the life of an institution which is of such inestimable value to thousands of our less fortunate fellow-citizens. There is clearly a pressing necessity for at once raising a sum of £20,000, but with the aid of such an experienced body as the committee of the Infirmary this task should not be insurmountable. When we remember, too, the generosity with which Bristol always responds to any deserving appeal, and, moreover, that the claims of this institution are pre-eminent amongst those of the charities of our city, we can look forward with every confidence to complete success in the great efforts which will have to be put forth. It is only proper that I should remind the committee that I am entirely without experience in such work, but, if there

is still a general desire that I should accept the office, I may say that I shall feel honoured by their selection, and shall look forward with pleasure to an association with those who have for so many years devoted themselves to the interests of this noble charity. Believe me to be, very sincerely yours, GEORGE WHITE". All friends of the Infirmary will wish the New President a long career of satisfactory progress in his new office, and will congratulate the Institution in having at its head one whose well-known knowledge of finance and whose philanthropic spirit are likely to be of incalculable value. Whatever course may ultimately be adopted as regards the outstanding debt to the Treasurer, amounting at the close of last year to the large sum of £15,548, it should be remembered that the financial stability of the Institution is to some extent secured by the presence of what may be called a reserve fund of capital amounting to £133,261. It would not be honourable that this should be ruthlessly utilised by the present generation for the purpose of paying its recent debts, so that doubtless some effort must be made in the near future to increase the annual income and to pay off the accumulated liability of many past years. But, further, it is much to be desired that some steps shall be taken to curtail the expenditure of an institution whose income is annually far less than the former. This cannot be done by closing wards which are constantly full of deserving cases, and the general principle of municipalisation of hospitals has received (and, we think, rightly so) very little favour in this country. The question of hospital abuse is raised from time to time, and some persons are inclined to credit the authorities of our medical institutions with laxity in their standard as to the qualification for hospital treatment. The motto of the Infirmary, "Charity Universal," almost forbids too close a scrutiny of the financial position of the applicants for relief, but an investigation by the Charity Organisation Committee some years ago tends to show that here as elsewhere there is some misuse of the time and gratuitous service of the medical staff by those who could well afford to pay a moderate fee, and that some of the funds of the institution are in this way misapplied,

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Medical Defence.

THE proposal to combine the various societies under the all-embracing wing of the British Medical Association seems to have led to much discussion and not a little disagreement. The Committee appointed by the Association has drawn up a draft scheme, which is being submitted to the consideration of the local divisions. It remains to be proved whether that consolidation which is proposed can in any way be effected. It is felt that the London and Counties Medical Protection Society and the Medical Defence Union with other societies engaged in medical defence have done good work for many years, and it seems a little unreasonable to ask that they should cease to exist. It is also felt that the work may not be done so efficiently by a sub-committee of the Council of the British Medical Association as it has already been done by those who have undertaken it *con amore* and have carried it on so efficiently. The Bristol division has given its vote against the scheme as proposed, but it remains open to the individual members of the Association to choose for themselves which scheme of medical defence they consider to be the most worthy of their confidence.

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Dr. Maclagan and his great work.

THE death of Thomas John Maclagan, M.D., has been the subject of an article in the *Nineteenth Century* by Sir William Broadbent, Bart., K.C.V.O., M.D., F.R.S., under the above heading. The utility of salicin and the salicylates is now so universally admitted that the origin of the discovery and the discoverer are apt to be forgotten; but this article calls attention to the miasmatic theory of rheumatism, the presence of a specific poison and its antidote. It was insisted on by Maclagan that "to attain the object the remedy must be administered in full doses . . . that to give salicin in iron-tonic fashion, ten grains three times a day or every four hours, was to bring it into discredit and to court failure: to fulfil the required indication and kill the organism twenty or thirty grains should be given every hou for six doses in two succeeding days." Recent investigations on rheumatism have more than

confirmed Maclagan's views, and his name should be enrolled as one of the great benefactors of the human race.

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The State Registration of Nurses.

Opinions seem to be much divided on this question. Miss Eva C. E. Lückes, matron of the London Hospital, than whom there is no one who can speak with more authority, in the *Nineteenth Century* for May, sums up the arguments against the proposed registration in a very able article, showing that recognition by the State will not be a panacea for all the real and imaginary grievances against nurses. The article concludes as follows:—"Many will be ready to defend the freedom of the best-trained nurses, and to do all that is possible to save them from the fallacious 'protection' with which they are threatened. If the unsuitable could be annihilated by registration, there would be something to say in its favour; but no one can claim that this would be achieved." Many have already done this. The letter of the chairman of the London Hospital[1] makes the statement that "the matrons of almost all the leading training schools for nurses are opposed to registration, and will not serve on any such council."

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Ministry of Public Health.

The proposal to institute some reform for the removal of flaws in our sanitary organisation has been favourably received by many sanitary associations. The British Medical Association so far sympathises with the need for a stronger State Department of Health that it is promoting a Bill in Parliament for the remodelling of the Local Government Board, making the President of the Board a Secretary of State. Dr. F. Bushnell, of Plymouth, calls our attention to the fact that this subject is to be discussed at an early meeting of the Royal Institute of Public Health, and he suggests that the following questions might be taken as subjects for discussion:—(1) The duties of the proposed Ministry in contrast with those of the Local Government officer. (2) The co-ordinate action of the latter and other offices in public health matters with the

[1] *Brit. M. J.*, 1904, i. 920.

proposed Ministry. (3) Its cost and its advantages. (4) The international aspect of the State towards hygiene and medicine. There seems to be no doubt that the subject is one of such importance that it should be made an official one in all international and other sanitary and medical congresses. We notice in this connection that an institute of hygiene is being formed for the purpose of promoting the advancement of personal hygiene, with the following objects:—To institute classes, lectures and demonstrations; to form a library of works on personal and domestic hygiene; to publish a journal devoted to personal and domestic hygiene; to establish a permanent exposition of food products, beverages, articles of clothing and appliances representative of home and foreign progress in each of these departments; and to have a recognised centre of information on all such matters as pertain to personal and domestic hygiene.

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Winsley Sanatorium for Consumptives.

The annual meeting of the Gloucester, Wilts and Somerset Branch of the N.A.P.C., held on May 13th at the Bristol Council House, was opened by the Lord Mayor of Bristol, Sir John Dickson Poynder, Bart., M.P., presiding. In presenting the annual report, Dr. Lionel Weatherly pointed out that no less than thirty-five beds were being built and maintained by corporations, rural district councils, working men's associations, private firms and private individuals. They expected that the sanatorium would be ready for opening in November. We regret that a sum of about £6,000 is still needed to start free from debt the sanatorium for sixty patients.

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Long Fox Lecture.

The first of the annual lectures in memory of the late Dr. Edward Long Fox will be delivered in November next by Dr. John Beddoe, F.R.S. We congratulate the appointing board on their fortunate selection, and on being able to secure the services of one who while being a former colleague of the late Dr. Long

Fox at the Bristol Royal Infirmary has made his name illustrious amongst British scientists, and we have no doubt that the coming lecture will be of lasting interest and value. The precise date and time will be announced in a later issue.

Notes on Preparations for the Sick.

Tabloids: Veronal, a new hypnotic.—BURROUGHS, WELLCOME & Co., London.

This is a synthetic compound, chemically described as diethyl-malonyl-urea. It occurs in colourless crystals of a slightly bitter taste, and is soluble in 145 parts of water at 20° C. (68° F.). Its therapeutic action is somewhat similar to that of trional, but in some cases it appears to be preferable to that agent. Doses of 0.5 gramme to 1 gramme have been found to induce refreshing sleep, and the drug appears to be well tolerated by most patients. Its action, however, is in some cases very marked, and it is always well to begin with a ½-gramme dose until the susceptibility of the patient is ascertained.

"Tabloid" Veronal will be found a most accurate and convenient means of administering the drug.

One great advantage it has over other hypnotics in common use is, that it acts not only pleasantly but *quickly*, and in smaller dose (grs. 7 to 15). If the tabloid form is not desirable it may be dissolved in a cup of warm tea or other fluid.

"Kepler" Malt Extract with Hæmoglobin.—BURROUGHS, WELLCOME & Co., London.

The direct administration of hæmoglobin has been followed by such favourable results, that this method of treatment has become established. As a blood-former hæmoglobin has been proved to be extremely efficacious. Containing, as it does, iron in organic combination precisely as it exists in the body, its assimilation is rapidly followed by definite improvement in health and strength.

It not unfrequently occurs, however, that patients evince a strong objection to the ordinary fluid, and in such cases "Kepler" Malt Extract with Hæmoglobin will be found satisfactory. It is efficient, stable and palatable, and possesses several marked advantages. In this preparation hæmoglobin is presented in a condition which ensures its immediate assimilation without disturbance of the digestive functions.

The value of "Kepler" Malt Extract is unquestionable.

Prepared from the finest winter-malted barley, the "Kepler" Extract contains the true malt diastatic ferment, and is rich in maltose, phosphates and albuminoids. This concentrated nutrient, combined with hæmoglobin, forms an admirable preparation for administration in anæmia, chlorosis, general debility, wasting diseases generally, and also in convalescence after illness.

"Kepler" Malt Extract with Hæmoglobin may be taken by adults in doses of from one teaspoonful to one tablespoonful, either alone or mixed with water or milk, after food, twice or thrice daily. The doses for children are proportionate to age.

Manganese and Iron Citrate with Quinine, and Manganese and Iron Citrate with Strychnine.—BURROUGHS, WELLCOME & Co., London.

Scale preparations of manganese and iron citrate are now issued in combination with quinine and with strychnine respectively, both being readily soluble in water.

"Wellcome" Brand Manganese and Iron Citrate with Quinine contains about 7 per cent. of manganese, 14 per cent. of iron, and 15 per cent. of quinine. It may therefore be administered in doses of 3 to 10 grains with or after food.

"Wellcome" Brand Manganese and Iron Citrate with Strychnine contains about 7 per cent. of manganese, 14 per cent. of iron, and 1 per cent. of strychnine. Dose, 1 to 3 grains with or after food.

"Enule" Brand Rectal Suppositories.—BURROUGHS, WELLCOME & Co., London.

"Enule" Suppositories obviate all the objectionable features of those hitherto in use, and provide a series of accurately-dosed suppositories, perfect in shape, in promptness of action, in therapeutic value, in keeping qualities, and in convenience.

They are produced by an improved process which ensures the even diffusion of the medicament throughout each suppository and exactitude of dosage. The novel shape adopted facilitates insertion and renders expulsion almost impossible.

Each suppository is enclosed in a sheath of pure tin-foil,

which keeps it free from contamination and septic influences until the moment when it is required for use. The sheath is then easily stripped off, and the suppository inserted in the ordinary way. This sheath also enables "Enule" Suppositories to resist atmospheric changes to a degree hitherto impossible.

All the agents ordinarily employed in rectal medication are issued as "Enule" products.

Recent additions to the list:—

"Enule" Quassin (Amorphous), gr. ½.—A successful anthelmintic for the ascaris lumbricoides. Sustained treatment is necessary. One "Enule" product is administered on each of at least twelve successive nights.

"Enule" Soap Compound.—Each contains curd soap, gr. 7, and dried sulphate of sodium, gr. 7. This combination is used for the relief of constipation.

Palatinoids.—OPPENHEIMER, SON & Co., London.

Creasote, Eucalyptol, and Iodoform.—This combination should be very useful in the treatment of chronic cases of lung disease. Each palatinoid contains half a minim of creasote and one-tenth of a grain of iodoform. The dose is so small that the palatinoids may be increased in number and taken frequently.

Ferrous Carbonate c Manganese Dioxide.—This is a combination of 2 grains of the latter with 4 grains of Blaud's pill compound. It is a combination which appears to be rather popular at the present time, more particularly in cases of menstrual disorders. The manganese dioxide, when given in pill form or as compressed tablets, is exceedingly difficult to dissolve, and hence the special utility of the palatinoid preparation.

Hydrated Magnesia.—GILES, SCHACHT & Co., Clifton.

We have received this sample of an old preparation of magnesia, which has recently been revived under the new designations of Milk of Magnesia and Maglactis. As an antacid and slight laxative, and as a sedative in cases of gastric catarrh, it should have attained a greater popularity than it has yet achieved under its newer designations.

Angier's Petroleum Emulsion.—ANGIER CHEMICAL COMPANY, London.

This emulsion has obtained a degree of popularity and apparently it has passed beyond the experimental stage and has an established reputation; but a recent analysis (Oliver Davis, University College Laboratory) shows that it contains 32.1 per cent. of a mineral oil, which is non-saponifiable and non-oxidisable. We fail to see how this indestructible oil can be of any use as nutriment in the alimentary canal, where the oxidising agents are surely not capable of doing more than can be done in the laboratory of the chemist. Perhaps the emulsion may have some mechanical and antiseptic action in the intestine, and although patients are understood to gain weight by its use, we cannot look upon it as in any way a substitute for cod-liver oil.

Pepto-albuminoid, or Meat Biscuits.—STEELE & MARSH, Bath.

The special advantage claimed for these biscuits is, that they are a complete food in themselves, containing concentrated the peptonised products of fresh meat in combination with extract of malt, pancreatised hydrocarbon, and a small dose of iron. They should be of great value to convalescents, to consumptives, diabetics, to delicate and anæmic children, as also to aged people. When nourishment is required in the night, and no nurse is available, these biscuits should be very convenient, and they are by no means unpleasant to take.

Glycerol Heroin Hydrochloride Co.—EVANS, GADD & Co., Bristol.

This glycerine solution of the heroin salt is combined with the active principles of senega root, wild cherry bark, and balsam of tolu.

Each fluid drachm contains one-sixteenth of a grain of the heroin hydrochloride.

It should be a comforting and valuable preparation to those who have irritating and obstinate affections of the respiratory tract.

Betul-Ol; Methyl-Oleo-Salicylate.—ANGLO-AMERICAN AND CONTINENTAL PHARMACEUTICAL COMPANY, Croydon.

A compound liniment of methyl salicylate distilled from the bark of the *Betula lenta*. It is absorbed readily by the skin, and is equivalent, weight for weight, to salicylate of soda. It is intended for local application in acute rheumatic and gouty affections, to supplement the action of other drugs given internally. It may be used with gentle friction or applied with a camel's-hair brush to the affected part, which should then be covered with oiled silk and cotton wool.

Sanatogen.—SANATOGEN COMPANY, London.

This powder, manufactured by Bauer & Cie, Berlin, is said to be "the best known tonic for the nerves and muscles." An analysis made by Mr. Oliver Davis, at the University College Laboratory, showed the presence of 93 per cent. of proteid matter, and the ash contained phosphates. It is therefore a highly nutritious powder, which should have a large range of utility. Professor Ewald, of Berlin, has written on its value in enteric fever. It is readily taken suspended in cold water or dissolved in any hot fluid, and a teaspoonful three times a day is usually considered to be a sufficient dose.

Vittel (Vosges).—GALLAIS & Co., London.

The mineral water of the "Grande Source" contains sulphates of calcium, magnesium and sodium, with some bicarbonates of

lime, magnesia and soda, carbonic acid, and lithium carbonate. The total solids amount to 1.65 grammes per litre. Its special utility is in the renal excretion on the gouty diathesis. It is an excellent table water, more especially applicable to the gouty.

In an address by Dr. Landouzy, he remarks that "Vittel *at home* will become as easy as Vichy *at home*, and its reputation will be equal to the services it has already rendered and those it will render in the future. . . . The Vittel cure is a cure by drinking water that modifies metabolism, specially acting against the gouty diathesis, chronic joint trouble, and functional urinary or bilious calculosis."

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in March :

May 31st, 1904.

The Alumni Association of the Albany Medical College (1) ... ... 1 volume.
The American Gynecological Society (2) ... ... 11 volumes.
The British Balneological and Climatological Society (3) ... ... 1 volume.
Cassell and Company (4) ... ... 1 „
L. M. Griffiths (5) ... ... 1 „
The Laryngological Society of London (6) ... ... 1 „
National Association for the Prevention of Consumption (7)... .. .. 2 volumes.
Pennsylvania State Medical Society (8)... ... ... 1 volume.
Providence (R.I.) Medical Association (9) ... ... 1 „
Rhode Island Medical Society (10)... ... ... 2 volumes.
Sir James Sawyer, M.D. (11) ... ... 1 volume.
The Scholastic Trading Company (12) ... ... 1 „

Unbound periodicals have been received from Dr. R. Shingleton Smith; and Dr. J. O. Symes has presented some unframed portraits.

TRANSACTIONS, REPORTS, JOURNALS, &c.

Albany Medical Annals ... ... (1) Vol. XXIV. 1903
Alienist and Neurologist, The ... ... Vol. XXIV. 1903
American Gynecological Society, Transactions of the (2) Vols. IV.–VIII. 1879-83
American Journal of Obstetrics, The ... ... Vol. XLVIII. 1903
American Journal of Ophthalmology, The ... ... Vol. XX. 1903
American Journal of the Medical Sciences, The, Vols. CXXV., CXXVI. 1903
American Medicine ... ... Vol. VI. 1903
American Surgical Association, Transactions of the... ... Vol. XXI. 1903
Archives de Neurologie ... ... Tom. XV., XVI. 1903
Archives of Pediatrics ... ... Vol. XX. 1903
Archives provinciales de Chirurgie ... ... Tom. XII. 1903
Australasian Medical Gazette, The ... ... Vol. XXII. 1903
Birmingham Medical Review, The ... ... N.S., Vol. I. 1903
Bookseller, The 1903
Boston Medical and Surgical Journal, The... ... ... Vol. CXLIX. 1903
Bristol Medico-Chirurgical Journal, The ... ... Vol. XXI. 1903
British Journal of Dermatology, The ... ... Vol. XV. 1903
Bulletin de l'Académie de Médecine ... ... Tom. XLIX., L. 1903
Bulletin de l'Académie royale de Médecine de Belgique ... Tom. XVII. 1903
Canadian Practitioner and Review, The ... ... Vol. XXVIII. 1903
Cincinnati Lancet-Clinic, The ... ...Vol. XC. 1903
College of Physicians of Philadelphia, Transactions of the Vol. XXV. 1903
Echo médical du Nord, L' 1903
English Catalogue of Books for 1903, The 1904
Epidemiological Society of London, Transactions of the Vol. XXII. 1903
Gazette des Hôpitaux 1903
Gazette des Hôpitaux de Toulouse 1903
Gazette hebdomadaire des Sciences médicales de Bordeaux Tom. XXIV. 1903
Gazette médicale de Paris 1903
Giornale internazionale delle Scienze mediche 1903
Glasgow Medical Journal, The ... ...Vol. LX. 1903
Hospitals—
Guy's Hospital Reports ... ... Vol. LVIII. 1904
Johns Hopkins Hospital Reports, The... ... ... Vol. X. 1902
St. Thomas's Hospital Reports ... ... Vol. XXXI. 1904
Indian Medical Gazette, The ... ... Vol. XXXVIII. 1903
Intercolonial Medical Journal of Australasia ... ... Vol. VIII. 1903
International Medical Magazine ... ... Vol. XII. 1903
Johns Hopkins Hospital Bulletin, The... ... ... Vol. XIV. 1903
Journal d'Hygiène ... ...Vol. XXVIII. 1903
Journal of Balneology and Climatology, The ... ... (3) Vol. VII. 1903
Journal of Hygiene, The... ... ...Vol. III. 1903
Journal of Laryngology, The... ... ... Vol. XVIII. 1903
Journal of Mental Science, The ... ... Vol. XLIX. 190
Journal of Obstetrics and Gynæcology of the British Empire, The Vol. IV. 1903
Journal of Tropical Medicine, The ... ... Vol. VI. 1903

Journal of Tuberculosis, The... ... ... Vol. V. 1903
Laryngological Society of London, Proceedings of the ... (6) Vol. X. 1903
Laryngoscope, The ... ... Vol. XIII. 1903
Library Association Record, The ... ... Vol. V. 1903
Library Association Year-Book, The 1904
Library, The ... ... N.S., Vol. IV. 1903
Lucerne County Medical Society, Transactions of the 1903
Medical Age, The ... ... Vol. XXI. 1903
Medical Annual, The 1904
Medical Chronicle, The ... ... 4th Ser., Vol. V. 1903
Medical Examiner, The ... ... Vols. II.–IV. 1901–03
Medical News, The ... ... Vol. LXXXIII. 1903
Medical Press and Circular, The ... ... [Vol. CXXVII.] 1903
Medical Record, The ... ... Vol. LXIV. 1903
Medical Review, The ... ... Vol. VI. 1903
Mercy and Truth ... ... Vol. VII. 1903
Monthly Cyclopædia of Practical Medicine, The ... ... Vol. VI. 1903
Montreal Medical Journal, The ... ... Vol. XXXII. 1903
Nord médical, Le ... ... Tom. IX. 1903
Occidental Medical Times ... ... Vol. XVII. 1903
Odontological Society of Great Britain, Transactions of the Vol. XXXV. 1903
Pennsylvania Medical Journal, The ... ... (8) Vol. VI. 1903
Post-Graduate, The ... ... Vol. XVIII. [1903]
Practitioner, The ... ...[Vol. LXXI.] 1903
Progrès médical, Le ... ... Tom. XVII., XVIII. 1903
Providence Medical Journal, The ... ... (9) Vol. IV. 1903
Publishers' Circular, The ... ... (12) Vol. LXXIX. 1903
Revue de Thérapeutique médico-chirurgicale 1903
Revue générale d'Ophtalmologie ... ... Tom. XXII. 1903
Revue hebdomadaire de Laryngologie ... ...Tom. XXIII. 1903
Revue pratique d'Obstétrique et de Gynecologie ... ...[Tom. XIX.] 1903
Rhode Island Medical Society, Transactions of the, (10) Vol. VI., Part 5 1903
St. Louis Medical and Surgical Journal, The, Vols. LXXXIV., LXXXV. 1903
St. Petersburger medicinische Wochenschrift 1903
Sanitary Record, The ... ... Vol. XXXII. 1903
Scottish Medical and Surgical Journal, The ... ... Vol. XIII. 1903
Swansea Rural District Council, Medical Officer's Annual Report on the Llandilo-Talybont Division of the, for 1903... 1904
Therapeutic Gazette, The ... ... Vol. XXVII. 1903
Treatment ... ... Vol. VII. 1903–04
Tuberculosis ... ... (7) Vols. I., II. 1899–1903
West London Medical Journal ... ... Vol. VIII. 1903
Wiener klinische Wochenschrift 1903
Zentralblatt für Chirurgie 1903
Zentralblatt für Gynäkologie 1903
Zentralblatt für innere Medicin 1903

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

March 9th, 1904.

Mr. J. Paul Bush, C.M.G., President, in the Chair.

The following cases, specimens and lantern slides were shown:—

Mr. James Taylor: A series of lantern slides illustrating the value of the **X-rays in the diagnosis of Colles's fracture.**

The President: Lantern slides of **skiagraphs of some fractures and dislocations.**

Dr. Newman Neild and Dr. Theodore Fisher: Lantern slides illustrating a case of **congenital hypertrophic stenosis of the pylorus.**

Dr. E. C. Williams: (1) A case of **acquired syphilis** in a child aged 2 years; (2) a case of **argyria**; and (3) a case of **Graves's disease** in a girl aged 12 years.

Dr. P. Watson Williams: (1) A case of **incipient paralysis agitans**; (2) **frontal sinus empyema and ethmoidal cell disease** successfully treated by intranasal methods; (3) a case of **intralaryngeal fibroma**; and (4) a case of **laryngeal tuberculosis** successfully treated by submucous injections.

Dr. W. Kenneth Wills: (1) A case of **lupus hypertrophicus** after light treatment; (2) a case of **keloid after using X-rays**; and (3) a case of **recurrent carcinomatous nodules** relieved by the X-rays.

Mr. A. W. Prichard: (1) A case of **dislocation of the lens, with coloboma of the choroid**; and (2) a case of **cysticercus of the vitreous.**

Mr. F. R. Cross: (1) Three cases of **paralysis** of the **third cranial nerve**; (2) three cases of **glaucoma**; (3) a case of **operation for double ptosis**; (4) a case of **retinitis proliferans**; and (5) a case of **astigmatism with very high cylinder lens.**

Dr. Clements Hailes: A case of **traumatic sclero-choroiditis.**

Dr. R. G. P. Lansdown: A case of **nævus of the leg.**

Dr. J. Lacy Firth: A patient free from recurrence after removal of a **cancer of the tongue and cancerous glands** on both sides of the neck four years previously.

Mr. T. Carwardine: (1) A patient after **gastro-jejunostomy for pyloric stenosis**; (2) a patient after operation for **cerebral abscess**; and (3) a patient after operation for **lateral sinus thrombosis.**

Mr. H. W. KENDALL: A **strangulated ovary in a hernial sac** of an infant.

Mr. H. F. MOLE: A **gangrenous ovary and Fallopian tube removed from a hernial sac** of an infant; (2) a **prostate removed by Freyer's method**; and (3) a case showing **healing of a large perforation of the membrana tympani**, with calcareous deposit.

Dr. E. W. HEY GROVES: (1) A case of **chancre of the tongue**; (2) a case of old **unreduced dislocation of the head** of the radius; (3) a case of **excision of the clavicle**; (4) a specimen of **carcinoma of the rectum**; and (5) **gallstones** from a man aged 26 years.

Dr. NEILD: A case of **acromegaly.**

Dr. W. H. C. NEWNHAM: (1) A **fibroid uterus with pyometra**; and (2) a **tubo-ovarian abscess.**

Dr. G. PARKER: (1) A case of **congenital heart disease**; and (2) cases of **injury to the upper extremity**, with lesions of the brachial plexus.

Dr. A. OGILVY: A case of **transposition of the viscera.**

Mr. A. L. FLEMMING: A case of **cervical ribs** (with skiagraph).

Mr. J. J. S. LUCAS: (1) A specimen of **cancer of the œsophagus simulating an aneurysm**; and (2) **multiple growths in the intestine**, with microscopic sections.

Mr. G. MUNRO SMITH: A photograph of symmetrical **abscesses in the calves**, causing an appearance simulating pseudo-hypertrophic paralysis.

Dr. H. WALDO: (1) Two cases of **lupus vulgaris** of the face in which no result had followed prolonged light treatment; (2) a case of **lichen ruber planus** of the neck and perineum; (3) a case of **universal alopecia**; (4) a case of **adenoma sebaceum** of the face; (5) a case of pityriasis rubra (dermatitis exfoliativa); (6) a case of **disseminated sclerosis**; and (7) a case of **mitral stenosis with presystolic** and **tricuspid systolic murmurs.**

Dr. F. H. EDGEWORTH: A case of **tuberculous disease followed by osteo-arthritis.**

Mr. C. H. WALKER: A case of **chronic ulcerative conjunctivitis** (?tuberculous) in a boy aged 16 years.

April 13th, 1904.

Mr. J. PAUL BUSH, C.M.G., President, in the chair.

Dr. STACK showed some specimens of **tubercular disease of the breast.** The microscopical preparations had been made by Mr. A. L. FLEMMING. The disease was formerly held to be very uncommon. Probably many specimens had been mistaken for scirrhus, or simply mastitis. The disease existed in two

forms: in one there were scattered caseous foci; in the other there was diffused inflammation with very little evidence of caseation. Tubercular disease was seldom diagnosed as such, being usually mistaken for ordinary chronic mastitis. Two specimens of tubercular disease were shown, also one of adeno- or ring-carcinoma of the mamma, and one of cancer *en cuirasse*. —Mr. MUNRO SMITH thought the first specimen was probably carcinoma, and he asked why the adenomatous tumour shown was considered to be adeno-carcinoma rather than adeno-fibroma.—Dr. E. W. HEY GROVES mentioned a case in which he had removed a breast presenting numerous breaking-down sinuses, which proved to be tubercular. Some enlarged axillary glands which were present subsided later.

Mr. J. PAUL BUSH read notes on a **case of acute hemorrhagic pancreatitis**. He remarked that no signs of this disease were pathognomonic, and that a correct diagnosis was often only attained by a process of exclusion. His patient was a married woman of 28. She had been sent into the Bristol Royal Infirmary as a case of intestinal obstruction. She was very stout and looked older than she actually was. She had been suddenly seized with violent epigastric pain some hours before admission. Pressure increased the pain. There were frequent vomiting, a soft, small pulse of 120, and much sweating. Twelve hours later the vomiting still continued and the patient was worse. The abdomen was therefore opened, first below, then above the umbilicus. Fluid escaped, and after removing calculi from the gall-bladder a drainage-tube was inserted. On the tenth day some fluid which contained pancreatic ferments escaped through the upper wound. No sheaves of yellow crystals were obtained from the urine with Cammidge's test. The patient died, and the *post-mortem* showed extensive hemorrhage into the pancreas and extensively-diffused fat necrosis.—Mr. H. F. MOLE alluded to a case of suppurative pancreatitis which had been treated in the Infirmary some years previously.—Mr. T. M. CARTER alluded to a case of hemorrhagic pancreatitis he had had under his care some years previously. The patient had been a middle-aged man. Severe epigastric pain and profound collapse had been the most marked clinical features of the case. The heart sounds became so weak that they could scarcely be heard with an ordinary stethoscope. The patient had been very restless and mentally very alert. The rectum had shown a remarkable degree of ballooning, and obstruction of the bowels had been complete. The pancreas obtained from the patient had been shown by Mr. Firth at a previous meeting.—Dr. WALDO said he had seen six cases of the disease, two of which had recovered after operation. Glycosuria was rarely present. Chronic pancreatitis should be considered in cases in which severe jaundice persisted.—Mr. J. LACY FIRTH confirmed the remarks Mr. Carter had made about his case. He himself had regarded that case as one of intestinal

obstruction. Since then he had operated on a woman in the Hospital with symptoms suggesting a perforated gastric ulcer, and the operation had shown this case also to be one of acute pancreatitis, though not of a definitely hemorrhagic type. He had drained the pancreatic region. For ten days the patient's condition had improved, but about the sixteenth day she had succumbed. Lately he had operated upon a man with a history of attacks of pain accompanied with jaundice, suggesting biliary colic from gall stones. No gall stones were found at the operation, but the pancreas was felt to be enlarged and indurated, especially the head of pancreas. The man appeared to be improving as a result of draining the gall-bladder. The case seemed to be one of chronic indurative pancreatitis. There was no glycosuria, nor could Cammidge's crystals be found.—Mr. BUSH added that there had been only very slight jaundice in his case, and a trace of albumen in the urine.

Dr. E. C. WILLIAMS read notes on a case of **"Blackwater Fever."** (*Vide* p. 128.)—Dr. FORTESCUE-BRICKDALE had prepared microscopical specimens of the blood.—Mr. T. M. CARTER alluded to a case of this fever he had had under treatment. The man had had an attack in Lagos. The attack the speaker had seen occurred about five weeks after the patient had returned to England. He had not given quinine, believing it not to be a serviceable drug for the disease.

Mr. G. MUNRO SMITH discussed the **diagnosis of malignant tumours by the microscope,** and illustrated his remarks with lantern slides.

J. LACY FIRTH.
H. F. MOLE (*Hon. Sec.*).

Local Medical Notes.

University College, Bristol.—Students of the College have been successful in the following examinations:—University of London *B.S.*: Walter C. Swayne, M.D. (Lond.). *M.B.* (Second Div.): S. R. Williams. *Intermediate M.B.:* C. E. K. Herapath, C. S. Rivington. *Doctor of Science:* John Herbert Parsons, M.B., B.S. (Lond.). Conjoint Board of the Royal Colleges of Physicians and Surgeons of England.—*Practical Pharmacy:* E. Christofferson, W. T. Clarke, E. J. Dermott, J. L. O. Tilley. *Biology:* E. J. D.

Haining, H. H. S. Templeton. *Chemistry:* E. E. Davies. *Anatomy and Physiology:* E. S. Goss, F. J. McQueen, H. T. Rossiter, R. G. Vaughan, F. T. Boucher, R. J. G. Parnell. *Medicine:* F. P. Hughes,* J. C. Wadmore,* S. C. Hayman. *Surgery:* F. H. Rudge.* *Midwifery:* R. O. Bodman, V. A. Crinks, L. N. Morris.—L. D. S. (Eng.). *Preliminary Science Examination:* H. T. Genge. *Final Examination,* Part I.: W. E. Boulter,* A. J. Mundy. Part II.: George H. Smith.*—L.S.A. *Surgery:* P. F. Howden, R. Reynalds.* — L.R.C.P. and S. (Edin.), L.F.P. and S. (Glasg.): J. Crétin.

Bristol Royal Infirmary.—*Assistant Dental Surgeon:* Charles A. Hayman, M.D., F.R.C.S.I., L.R.C.P.I., L.D.S.

Bristol General Hospital.—*Assistant House Physician:* C. A. Moore, M.R.C.S., L.R.C.P. *Casualty Officer:* F. H. Pickin, M.R.C.S., L.R.C.P. *Assistant House Surgeon:* A. R. Short, M.B., B.S., B.Sc. (Lond.).

Royal Hospital for Sick Children and Women.—*House Surgeon:* K. H. Beverley, M.R.C.S., L.R.C.P.

Hospital Sunday Fund.—We are indebted to Dr. Bertram M. H. Rogers, Secretary to the Committee which deals with the above Fund, for the information that the number of collections for the Fund were 327 in 1903, and 383 in 1904. There were thus 56 more collections in the present than in the preceding year. The amount collected was £1,720 3s. 8d. in 1904, and £1,565 4s. in 1903, showing an increase in the present year of £154 19s. 8d.

Winsley Sanatorium.—The annually-recurring fête or carnival is announced, under the name of "OPENAIRIA," to be held on June 29th and three following days. Its object this year is to raise money for the furnishing and equipment of the Winsley Sanatorium for consumptives. It can hardly be necessary to remind our medical colleagues that the Sanatorium is for the accommodation of patients, not from Bristol alone, but from all parts of the three counties of Gloucester, Somerset, and Wilts, and that the local committee may rightly look for the support of neighbouring districts, which will participate equally with Bristol in the benefits which it will undoubtedly confer on consumptives of limited means residing in this large district. The Right Hon. Lewis Fry, P.C.; Sir John Dickson Poynder, Bart., M.P.; the High Sheriff of Bristol (H. Greville Edwards, Esq.); and the Lord Bishop of Bristol have severally kindly consented to open the fête on successive days.

* Completes examination.

Yours sincerely
Edward Robinson